A Course of Twelve Lectures
ON THE
STRUCTURE AND DEVELOPMENT
OF THE
VERTEBRATE SKELETON.

Recently delivered at the Royal College of Surgeons of England,

BY PROFESSOR HUXLEY, F.R.S.

LECTURE VII.

MR. PRESIDENT AND GENTLEMEN,—At the end of my last lecture I stated that all vertebrate skulls were referable, in the long run, to three distinct classes. They were either, in the first place, modifications of the type of the membranous embryonic skull before it has developed any cartilaginous or osseous matter, while it still retains the notochord in full perfection and size; or, in the next place, modifications of the embryonic cartilaginous skull before any definite ossification has taken place in it, or upon it; or, in the third place, modifications of the osseous cranium, such as we find it in the fish, such as we find it in the man, or such as we find it in intermediate conditions. The only example of the first class was that very remarkable rudimentary skull found in the amphioxus lanceolatus, where the jaw is unrepresented—in fact, the whole maxillary apparatus is unrepresented; the walls of the cranium are entirely membranous; and there is this exceedingly remarkable and anomalous peculiarity, that the notochord extends beyond the cavity of the cranium. At the same time this differs widely from all other vertebrate skulls in the entire absence of any auditory organs at the side of the skull. Leaving that, I went on to speak of the cartilaginous cranium, and pointed out that there were two modifications of that cranium: a simpler one, where the mandible is not represented at all, and where the most you have of the maxillary apparatus consists in the palatal suspensory apparatus in what corresponds with the palatine, and quadrate, and so on, in fishes; but represented merely by an inverted cartilaginous arch, which is completely united with the sides of the skull in a rudimentary condition, consisting of little more than that which corresponds with the basilar part in the fœtus, with anterior expansions and lateral auditory sacs. We have two modifications of this kind: one in the lamprey, and the other in the myxine; the lamprey having an elaborate branchial skeleton in addition to the cranium, the myxine possessing an equally elaborate pharyngeal basket; neither, however, corresponding to the great essential inferior arches of the skull. There was another division of this cartilaginous skull with fixed lateral portions, which was exhibited by the chimæra and the lepido-siren, where there was a more or less complete cartilaginous cranium, with the lateral portions, which correspond to the palato-quadrate apparatus, completely fixed to the skull, and having a well-developed lower jaw articulating at the extremity of the inverted arch thus fixed. In the chimæra the surface of the cartilage is at most covered with minute osseous plates—nothing more than this kind of osseous incrustation. In the lepido-siren there are certain definite bones; some correspond with membrane bones, some are distinct ossifications, like the ex-occipitals in the true cartilaginous cranium.

I have now to speak of the next division of cartilaginous crania—of those where the cartilaginous box is well developed, but the palatal apparatus which supports the lower jaw, usually composed of distinct pieces, is itself movably articulated with the skull. Skulls of this kind are again divisible into two groups, just as the skull with the fixed inferior arches, which I spoke of just now, is divisible into two classes, according as there are definite cranial bones or not. In the one, comprising sharks and rays, there are no definite cranial bones at all—that is, no bones corresponding with those definite and large ossifications occurring in definite regions of the skull which we find in the pike; there are neither membrane bones, bones developed from membrane, nor ossifications within the cartilaginous cranium itself which correspond to the definite bones of the pike. This, however, you will understand, does not exclude the existence of a considerable amount of ossification upon the substance of the skull itself; in most, in fact almost all sharks and rays and animals contained within this group, the outer surface of cartilage of which the skull is composed is incrusted over with a great number of thin, delicate, polygonal plates of bone, forming a hard outer coating. In the other division, where the cartilaginous cranium with movable inferior arches is well developed, there is a very definite apparatus of bones, such as you may see in the sturgeon and spatularia, two fishes in which this kind of cranium is best shown—indeed the only fishes. Here is a remarkable circumstance, which I shall point out more in detail by-and-by, that the cranial ossifications, while they correspond fairly in position and character with such ossifications as we find in the pike, are entirely of membrane bones. In the head of the sturgeon there is not, so far as I am aware, any bone distinctly produced by ossification of cartilage.

We must pay some little attention to these skulls, because their nature has not, I think, been thoroughly understood, and the interpretation of their parts has been a matter of some dispute, though, as I hope we shall see in the long run, it is not in reality a very difficult matter. If you take the squatina, for example (Fig. 45), the monk-fish, you will perceive that

FIG. 45.

Side view of skull of monk-fish (*squatina*). *a*, Auditory eminence. *b*, Ethmo-vomerine region. *c*, Post-frontal region. *d*, *e*, *f*, *g*, Palatine, pterygoid, quadrate, and meta-pterygoid regions of upper dentigerous piece. *h*, Lower dentigerous piece. *i*, Suspensorium. *m*, Hyoid arch. *n*, Basi-hyal. *o*, *q*, Upper labials. *p*, Lower ditto.

the skull is a flat, depressed box, covered, as I have said, with those small plates of cartilage, and sometimes in the sharks produced at the anterior extremity into a sort of cut-water, an inferior one, and two lateral superior ones. Then there is an occipital foramen at the back part of the box; the hinder part of the sides (Fig. 45, *a*) are somewhat produced to form two lateral enlargements, in which the auditory organs lodge; the semicircular canals and labyrinth are placed there. In many fishes the labyrinth has a direct communication with the upper part of the skull by certain apertures. Then in front of these capsules for the auditory organs there are usually two processes, which bound the outer part of the orbit—post-orbital processes (Fig. 45, *c*); then there are two others, ant-orbital processes,

lying in front of the orbits (behind *b*); then there is the termination of the skull, which is arched (Fig. 45, *b*), and which has underneath it the cavity of the nose. If you make a section of the cranium you will find the cavity elongated, wide, and depressed, and, unlike the primordial cranium of the pike, the auditory chambers in which the organs of hearing are lodged are almost completely separated from the general cavity of the skull, there being a kind of cartilaginous wall separating the one from the other, so that there is a complete chamber for the internal ear. For the rest, the cavity itself resembles essentially very much the cavity of the cartilaginous cranium of the pike. You find in the same way that the apertures by which the nerves make their exit have the same relations to the different parts of the skull. The apertures by which the eighth pair leave the skull are placed immediately behind the chamber for the organ of hearing; the apertures for the fifth pair are placed in front of that chamber; then, again, the apertures by which the optic nerves leave the skull are a little further forward; and the olfactory nerves pass out from the lateral portion of the skull, in the same way as in the cartilaginous cranium of the pike. So that the resemblance between the two is quite complete, if you make this little difference in detail: In the pike, the hinder part—the chamber in which the auditory capsules are contained—is comparatively small in relation to the whole skull, although not very small, and the inter-orbital portion is somewhat prolonged; the post-orbital processes arise from the front part of the auditory canals, as they do in squatina; there is an inter-orbital septum, and there are ant-orbital processes; the snout part is very much prolonged—into a long process; and the nasal apertures are placed upon the upper part of that process. In the shark, on the other hand, the hinder part quite closely agrees. There is the same sort of broad lateral process, but the inter-orbital part is altogether much broader and comparatively shorter. It is produced into a process which joins the ant-orbital process; and the snout part—exceedingly short—becomes broad at the end (Fig. 45, *b*). So that the skull of the shark (Fig. 46) is more like the cartilaginous cranium of the

FIG. 46.

Diagram of base of shark's skull. *a*, Basi-occipital region. *b*, Auditory ditto. *c*, Inter-orbital ditto. *d*, Pre-frontal ditto. *e*, Ethmo-vomerine ditto. *f*, Post-frontal ditto.

frog than it is like, in its mere outward form, the cartilaginous cranium of the pike. Then, again, it is very interesting to find that this highly-organized fish, the shark, retains a fœtal character. I pointed out, in describing the development of the fish—as is the case in all vertebrate animals—that the nasal sacs at first make their appearance upon the under part of the anterior region of the head as involutions of the integument. In most vertebrate animals, as development proceeds, that part of the skull is, as it were, straightened out and pushed forwards; and the olfactory sacs come to be eventually upon the upper part of the sides of the inter-nasal septum. In the shark, on the other hand, they always retain their original position upon the under-surface of the snout. The rostrum—the beak part, the vomerine part, of the cranium—is not developed into an inter-nasal septum; and, as a result of that, the nasal sacs are not thrown up to the sides and the upper part, and so they retain their primitive embryonic relations. The articulation of the back part of the skull in the sharks and rays is either by a treble facet—a middle and two lateral ones,—or else by a double facet, as in the rays (Fig. 47) more particularly. There is, therefore, no difficulty in understanding the general character of the cartilaginous cranium of the shark. But the inferior arches present us with some difficulties and some complexities. In the cranium of

FIG. 47.

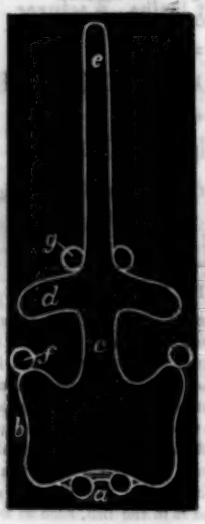


Diagram of base of skate's skull. *a*, Occipital condyles. *b*, Auditory region. *c*, Inter-orbital ditto. *d*, Pre-frontal ditto. *e*, Ethmo-vomerine ditto. *f*, Post-frontal ditto. *g*, Nasal sac.

the monk-fish, you will observe that there are two externally ossified cartilaginous rods, or bars, or arches, whichever you please to call them (they are more distinct still in the shark): one is an upper (Fig. 45, *d*), and one a lower, rod (Fig. 45, *h*). The lower obviously represents the lower jaw; but we may call it the lower dentigerous arch. I do not wish to give the parts any name implying a theoretical view as to their precise nature; I would, therefore, only speak of these as the upper and lower dentigerous arches. Now, in all the sharks and rays, the upper dentigerous arch, which is usually connected with the pre-frontal region of the cartilaginous cranium, at its hinder end articulates directly with the lower dentigerous arch, as you see in Fig. 45, *f*, *h*. There is a distinct joint by which the one plays in a ginglymoid fashion upon the other, allowing the opening and the shutting of the jaws: so that the upper dentigerous arch has no direct connexion at its hinder part with the skull, but only a very indirect connexion, inasmuch as the lower dentigerous arch, with which the upper one articulates, is connected with the skull by means of a strong bar (Fig. 45, *i*), which we will call the suspensorium, or suspensory apparatus. But the lower dentigerous arch is not connected with the suspensory apparatus by a joint. There is no definite articulation between the two; but there is a ligament—a strong bundle of ligamentous fibres—passing from one to the other; the whole apparatus, having a double form, is suspended indirectly from the sides of the skull by the ligamentous union of the lower piece with the suspensory piece. The suspensory piece consists of a single mass of cartilage, ossified externally commonly, and is placed in a deep and elongated fossa situated upon the sides of the skull, in pretty much the same region as we find the articulation of the hyo-mandibular bone of the pike, for example—that is, upon the outer side of the auditory capsule. Then there is another curious feature about this suspensorium—that upon the upper part it has certain diverging rays like those which we call branchio-stegal rays in the osseous fish, and at its lower extremity it is connected by ligament with this large and stout hyoidean arch (Fig. 45, *m*): so that this pedicle serves as the common indirect means of attachment of the hyoidean, on the one hand, and of the mandible, on the other, to the skull; and it serves still more indirectly, by means of the articulation of the upper dentigerous arch with the lower one, to connect that with the skull. That is, in general terms, the arrangement you find in all the sharks and in all the rays. Then in this particular shark—the squatina—there are some accessory cartilages, which are placed in the folds of the lips; there are two of them at the upper part at the sides of the upper dentigerous arch (Fig. 45, *o*, *q*); and there is one of them below (*p*); and the two are joined together at their angles. These are what have been called the labial cartilages: that is a name which implies nothing, therefore we may use it quite well.

The nature of the parts I have just now described, the upper and lower dentigerous arches, the labial cartilages, and the suspensorial apparatus, is a question which has been very largely

and hotly discussed since Cuvier published his memoir upon the Structure of the Jaw in Osseous Fishes—in the first volume of his "Mémoires des Musées," in which he published a remarkable and original essay, full of that genius which marks almost all his productions. I wish to dwell a little upon Cuvier's view, and the views afterwards taken by others of this apparatus, because I know very few instances in comparative anatomy which better exemplify the prodigious importance of the study of development, and how, after it has been possible for men of great ability to hold extremely diverging views with an equal appearance of probability upon all sides—now, after having held those views in various ways for many years, the embryologist at last is able to step in and solve the whole question in a way which is exactly in accordance with neither the one nor the other. Cuvier, in endeavouring to give an account of these jaws of the sharks, and to understand what parts of the dentary apparatus and the jaws of the pike, for example, corresponded with those in the sharks, came to this conclusion: he says that the piece which I have called the upper dentigerous arch, has on its inner side no branch which can possibly be compared to the palatine arch. And again he says that it is connected with the pre-frontal region of the skull; and finally, finding certain cartilages in the substance of the lips, and knowing that the pre-maxilla and the maxilla are liable to undergo very great changes of appearance and condition in osseous fishes—putting these things together, finding no palatine arches in the inside, regarding the upper labials (Fig. 45, *o*, *q*) as a true modified pre-maxilla and maxilla, looking at the connexion of the upper dentigerous piece with the pre-frontal region, he came to the conclusion that it was the palatine bone, that it corresponded with the palatine apparatus of the ordinary osseous fish, for example of the pike. Then he goes on to say, after entering into various questions, that in this case it is a capital argument against those who maintain the doctrine of absolute unity of organization; because, says he, this is a striking case, which shows us that here this single bone represents not merely the palatine bone in the ordinary osseous fish, but also the bone which is called the external pterygoid, and the bone which is called the internal pterygoid. So that Cuvier's view was that all this bar with its teeth represented the palatine bone, the internal pterygoid, and the external pterygoid of the pike. Then he said, what is this other bone (Fig. 45, *h*)? Of course, it was quite obvious that this part was the lower jaw; there could be no question about that. Then came the question, what was the suspensory piece? Cuvier said it gave attachment to those parts which have a certain relation to the operculum; and it further gave attachment to the hyoidean apparatus; and consequently we must seek to find in that something representing that in the pike which supports similar parts. He said that this pedicle represents the three bones called the hyo-mandibular, the bone which he called the tympanic (which I have called the meta-pterygoid), and the symplectic; and the other three bones were represented by the palatine apparatus. You must observe that there was a good deal that was exceedingly ingenious in this view of the case; and it was not altogether easy to upset Cuvier's view. After a considerable number of years had passed by, that famous anatomist, now dead, Johannes Müller, published his magnificent monograph upon the anatomy of myxinoid fishes, and put forward a totally different view, proceeding upon common ground with Cuvier; and this is one of the interesting parts of it—showing that two anatomists can start from the same common ground and arrive at exactly opposite results, if they stand by the method of anatomical comparison merely. First, Müller went into a series of observations as to the different kinds of cartilaginous fishes, to inquire into the nature of the labial cartilages. And he said, it is all very well to say that one is the pre-maxilla and the other is the maxilla, but what is the lower labial piece? No vertebrate animal has a second jaw in front of its proper jaw, and therefore it cannot possibly be a representative of any inherent or essential part in front of the lower jaw; and inasmuch as *o* and *q* (Fig. 45) is the same as *p* (Fig. 45), and has evidently the same relation to the skeleton, the whole of these must be regarded as accessory parts, not to be compared to any portion of the skeleton of higher vertebrata, but to that complex system of labial cartilages which you find in the lampreys and myxenoids. That was a good anatomical argument no doubt, and it is not improbable that Müller was right in that point. Then he said—What is Cuvier's second argument that *d*—*g* (Fig. 45) is a palatine apparatus? It is that there is no portion inside of the roof of the mouth to be found in the shark's corresponding with the palatine bone or with the pterygoid. To that Müller replied, basing his statement upon the observations made by himself and by Henle and others, that this is not the case, and that there are a great many cartilaginous fishes, particularly among the rays, in which you may find a little plate of cartilage in the palatine region, and a second little plate of cartilage in front. Müller said the cartilage lying behind corresponds evidently to the pterygoid, and the cartilage which is placed just inside is that which Cuvier failed to discover, and is the true representative of the palate; and, guided by this system of reasoning, Müller came back to the conclusion that this part, which had been always called the upper jaw, was truly the upper jaw, and that he had discovered the portions corresponding to the palate and pterygoid. You see that the mode of reasoning in both these cases was perfectly legitimate. I do not know that either of these great men has not displayed his fullest powers in argumentation, because there were a great many things, even from a purely anatomical point of view, to be said against both their views: as, for example, against Cuvier's view, that *d*—*g* (Fig. 45) was the palatine. What is the meaning of the articulation of the lower jaw with it? The lower jaw does not articulate with the palatine bone in vertebrate animals. And so against Müller's view the same argument would apply: *d*—*g* (Fig. 45) is the upper jaw—why does the lower jaw articulate with it? That is not the way in which the lower jaw articulates in any oviparous animal. So that it would be quite possible to set up a third theory in the matter from an anatomical point of view, and a fourth and a fifth, and perhaps half-a-dozen more, by speculating backwards and forwards, and adducing different kinds of analogies. Now, what will development do for us? Let me recall to your attention the condition in which the palatine and mandibular apparatus of an osseous fish are at the time when the cranium corresponds in its structure with the cartilaginous cranium of the shark. Take a very young trout or stickleback before the bony

FIG. 48.

Primordial skull of osseous fish. *c*, Auditory sac. *b*, Ethmo-vomerine cartilage. *a*, Base of inter-orbital septum. *d*, Palatal; *e*, pterygoid; *f*, quadrate; and *g*, meta-pterygoid regions of upper dentigerous arch. *h*, Lower dentigerous arch, the anterior part being the Meckelian, the upper posterior the articular, and the lower posterior being the angular region. *i*, Hyo-mandibular part of suspensorium; *k*, the symplectic portion; *l*, styloid; and *m*, hyoid-cornu.

matter is developed at all: you find that the hinder part of the cranium, with its otic capsules, represent the posterior portion of the shark's skull; then afterwards it narrows, forming the trabeculæ cranii; then from the outer side of the otic capsules there proceeds a pedicle (Fig. 48, *i*)—(it is easy to satisfy yourselves of these facts;) that pedicle sends down a process, first one continuous cartilage (*i*, *k*), and there it gives attachment to the little styloid elongation (*l*), which becomes connected with the cartilaginous hyoidean arch (*m*); from *b* to *c* it corresponds with the pre-frontal region; you have a bar of cartilage (*d*—*g*), and that bar of cartilage goes backwards; it enlarges somewhat as at *f*, *g*; and that by its lower margin gives attachment to the cartilage of the lower jaw (*h*). All these parts at this time are cartilaginous; and supposing this were a young pike (and it is the case with most osseous

fishes) we should by-and-by have teeth developed upon *d*, just as we should upon *h*. But it is only necessary to compare the skeleton of the squatina's head with this cartilaginous cranium of the osseous fish to trace out the exact correspondence of the parts. It is quite obvious that *a*, Fig. 45, corresponds with *a*, Fig. 48; that *i*, *h*, Fig. 48, is the suspensorial apparatus, consisting still of a single portion of cartilage, and, just as in the cartilaginous fish, giving attachment at *l* to the hyoidean apparatus, and, again just as in the cartilaginous fish, becoming connected by ligament with the upper and lower dentigerous arches (Fig. 48, *d*, *g*, *h*). So that, in its young state, in its embryonic condition, the mandibular apparatus of the osseous fish is exactly in principle identical with the mandibular apparatus of the cartilaginous fish. It appears to me that this exceedingly simple study of development at once solves the whole problem, and demonstrates as clearly as possible that neither of the two contending parties—great men as they were, and I know very few, if any, now living who can be mentioned in comparison with either of them—for want of what I venture to think is the right method, neither of them, with all their anatomical knowledge, could come to an exact solution of the question, because the mere anatomical analogies were capable of being applied in so many different ways. The upshot of the whole matter would be this, that Cuvier's view, that *d* to *g*, Figs. 45 and 48, was the palatine bone, was certainly a remarkable approximation to the truth, but not the whole truth, because it includes not only the elements of the palatine bone, but also the elements of the quadrate. When ossification takes place, we should find that *f*, Fig. 48, became the quadrate, *d* the palatine, *e* the pterygoid, and *g* the meta-pterygoid; therefore he was not at all correct in stating that *d*, *e*, *f*, *g*, Figs. 45 and 48, was equivalent to the palatine apparatus alone. Had he said it was equivalent to the palato-quadrate apparatus, he would have been, I think, absolutely and precisely accurate. Still less was Müller's view, that it was the upper jaw, correct, because it is obvious that it has nothing to do with the upper jaw, which is developed altogether outside, and has no direct relation to it; therefore it is quite obvious that Müller's view of the case, that *d* to *g* answers to the upper jaw in osseous fishes, is as incorrect as Cuvier's view. So if you take Cuvier's view with regard to the nature of the suspensorial apparatus—he said it corresponded to the bone which I have called the hyo-mandibular and the meta-pterygoid, and besides that to the symplectic. It is singular how near his intuition was to the truth, and yet how curiously he was mistaken. It is *i*, Fig. 48, which becomes the hyo-mandibular; it is *h* which becomes the symplectic. If he had left out the meta-pterygoid, his so-called tympanic, the statement would have been precisely accurate; putting that in, he showed that he had missed, as I think, the exact nature of the case. But it is remarkable how very nearly he came to a just conclusion. This view of the matter, you see, entirely leaves open the precise nature of the labial cartilages, which may be, as Müller suggested, merely accessory parts. It also leaves as accessory those cartilages which are developed in the roof of the palate in the rays, of which I have spoken. But I do not think the evidence deduced from development can be shaken or met by counter arguments of any kind.

All I have said regarding the shark will apply equally well to the rays. I do not know that there is any point specially to be noted about the rays, except the singular circumstance that in some of them, as in this cephaloptera, the anterior parts of the pectoral fins are connected by special cartilages, which is not the case in the shark. And, again, I may briefly, in passing, draw attention to two extraordinary modifications of form in the sharks and rays. The one is in the pristis saw-fish, where the snout, the rostral part of the skull, reduced to an enormously broad process, partially ossified externally, acquires a very large size, and sometimes has great teeth developed. One other peculiarity is another process in the zygæna, or hammer-headed shark, where the head has a cut-water formed in the same way as in ordinary sharks, only it is very obtuse; but what is very extraordinary about the zygæna is, that the anterior and posterior frontal processes of the skull are pulled out so as to be each of them certainly three or four times longer than the skull itself; and the eyes are obliged to follow this elongation, so as at length to be placed at the ends of these extraordinary pedicles. I do not know a case in the whole vertebrate series of a modification so extraordinary as this. I do not think that anyone has given even an adumbration of the precise final cause of this telescopic or semi-telescopic arrangement of the two eyes.

(To be concluded.)

A Course of Lectures

ON CERTAIN DISORDERS OF

THE BRAIN & NERVOUS SYSTEM,

WITH SPECIAL REFERENCE TO THE

CHANGES IN OPINION AND PRACTICE WHICH RESULT FROM RECENT RESEARCHES IN PHYSIOLOGY AND PATHOLOGY,

Delivered at the Royal College of Physicians,

BY CHARLES BLAND RADCLIFFE, M.D.,

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS, PHYSICIAN TO WESTMINSTER HOSPITAL, ETC.

LECTURE V.—PART I.

MR. PRESIDENT AND GENTLEMEN,—The topics upon which I propose to dilate in the present and following lectures are, convulsion, tremor, spasm, paralysis in certain aspects, pain and sensations analogous to pain—topics, that is to say, to the consideration of which the physiological inquiries of the preceding lectures have paved the way. I wish in particular to ascertain whether the therapeutics of the disorders which have just been mentioned are to be ruled in accordance with current notions on the subject, or in accordance with the very different notions which must be suggested by the physiological conclusions which I have been led to form respecting muscular motion and sensation—whether, in fact, these disorders are to be treated as the result of exalted vital action or the reverse: and in order to this I propose to take each disorder in turn, and to examine whether it is accompanied by an active or an inactive condition of the respiration, circulation, and innervation; for, as it seems to me, the activity or inactivity of these three great functions must furnish an exact measure of the activity or inactivity of vital action in the system at the time.

I. ON CONVULSION.

1. ON THE PATHOLOGY OF CONVULSION.

(1) ON THE PATHOLOGY OF CONVULSION AS DEDUCED FROM THE CONDITION OF THE RESPIRATION IN THIS DISORDER.

75. *The epileptic and epileptiform paroxysm is not unfrequently preceded by signs of defective respiration.*

The evidence upon this point is perhaps not very conclusive. I think, however, that the habit of sighing, which is not very unfrequent among epileptics, and which is often most perceptible when a fit is at no great distance, may be looked upon as a sign that a certain amount of want of breath has to be made up now and then by some breaths which are more deeply drawn than usual. I have also notes of more than one case in which, when the fits happened during sleep, the movements of the chest often came to a complete standstill for a few moments before the convulsions began—a standstill so complete as to have prompted a fear that death had actually seized hold of the patient.

76. *The epileptic or epileptiform paroxysm is usually accompanied by a state of unmistakable suffocation.*

The livid, black, and bloated head and neck, the sounds suggestive of strangling, the evident suspension of all proper respiratory movements, are symptoms which explain themselves, and these are the symptoms which are usually present in the fully developed form of the epileptic or epileptiform paroxysm. They suggest the idea of death by the bowstring of some invisible executioner. Nor is the case really different in those varieties of general or partial epileptic or epileptiform disorder in which the face remains pale and shrunken from the beginning to the end of the paroxysm, for in these cases there is a ghastly lividity of the countenance which shows very plainly that the convulsive symptoms are accompanied by some grave interruption to the function of respiration.

77. *The convulsion of hysteria or chorea is associated with a state of very defective respiration.*

In these forms of convulsive disorder the breathing is not arrested as it is in the epileptic or epileptiform paroxysms, but it is shallow, embarrassed, often prolonged into sighs, and generally accompanied by a distressing sense of want of breath. It is evidently hampered and interrupted in no inconsiderable degree.

78. *The condition of the respiration during convulsion is one which supports the notion that the convulsion is connected with depressed and not with exalted vital action.*

This is a necessary conclusion to what has just been said, if, as must needs be, the amount of vital action is to be measured by the amount of respiratory action.

(2) ON THE PATHOLOGY OF CONVULSION AS DEDUCED FROM THE CONDITION OF THE CIRCULATION IN THIS DISORDER.

79. *In the chronic forms of convulsive disorder the inter-paroxysmal condition is usually marked by evident signs of a feeble circulation.*

This is undoubtedly true of epilepsy, of hysteria, and of chorea: and, so far as I know, the rule is without exception.

80. *The epileptic and epileptiform paroxysm is usually, if not invariably, preceded by signs of failure in the circulation.*

The immediate precursor of the perfect form of the paroxysm is a sign which is somewhat difficult to catch—corpse-like paleness of the countenance. M. Delasciauve was the first to notice this phenomenon: and M. Trousseau insists upon it as a mark which distinguishes true epilepsy from feigned epilepsy. "Il est une signe," he says, "qui se produit du moment de la chute, et qui n'est imitable pour personne; c'est la pâleur très prononcée, cadavérique, qui couvre pour un instant la face épileptique. Nous ne le voyons pas, parceque nous arrivons toujours trop tard, alors que la face est déjà d'une rouge très prononcée." In a word, the general form of the epileptic or epileptiform paroxysm begins in the same way as the partial form, for it is allowed by all that the initial symptom in the latter case is cadaverous pallor of the countenance. I have often seen this peculiar symptom, and, in addition, I have always found it associated with great feebleness of the pulse at the wrist and elsewhere.

81. *In the fully developed epileptic or epileptiform paroxysm the pulse is sometimes roused to a considerable degree of activity, not because the arteries are then receiving a largely increased supply of* RED *blood, but because they are then labouring under a load of* BLACK *blood, as they are found to labour during suffocation.*

In some cases the pulse at the wrist is almost or altogether imperceptible from the beginning to the end of the paroxysm: in other cases the circulation rallies as the paroxysm proceeds, and when the convulsion is raging most fiercely, the pulse beats with considerable force, fulness, and frequency. How, then, is this? What is the true meaning of this vascular reaction? The current belief on the subject is that an increased quantity of *red blood* is injected into the arteries during the convulsion, and that this increased quantity of red blood produces the convulsion by provoking a state of increased functional activity in one or other of the great nervous centres; and very recently the late Prof. Schroeder van der Kolk has given distinct expression to this belief. In reality, however, there is reason to believe that the pulse acquires power in the epileptic or epileptiform paroxysm because the condition of the circulation at the time is one of suffocation, and for no other reason. For what is the condition of the circulation in suffocation? It is *not* one in which, as is generally supposed, the arterial pulse rapidly fails for want of blood, and the venous system as rapidly becomes gorged with unaërated blood: on the contrary, it is one in which the arterial system becomes gorged at the expense of the venous system, and in which the pulse in the arteries becomes stronger and stronger as the blood within these vessels becomes more and more venous in its character. All this is proved experimentally by the late Dr. John Reid, of Aberdeen, and by Prof. Draper, the younger, of New York. Having placed a ligature around the windpipe of a rabbit in which he had first laid bare the great vessels of the neck, Dr. Reid saw the red blood in the carotid change from red to black as the process of suffocation went on, until the colour was undistinguishable from that of the black blood in the neighbouring jugular. He saw this change of colour taking place in the stream of blood within the unopened vessel, for the coats of the carotids and jugulars are passably transparent; and he saw it more plainly still in a jet of blood from an artificial opening in the artery. He also measured the force of the pulse in the carotid by the hæmadynamometer, and found that it became greatly increased, perhaps doubled, during the time that the process of suffocation was in progress. In other words, he discovered that black blood finds its way into the arteries during the process of suffocation until it has displaced all the red blood, and that the force of the pulse augments progressively and considerably under these circumstances. Dr. Draper opened the chest of a rabbit, and found that one of the consequences of producing suffocation by placing a ligature around the windpipe, was to cause a considerable amount of blood to leave the right side of the heart and the venæ cavæ, and to accumulate in the aorta and in the left side of the heart—in the aorta first in order. He found, also, that this state of things did not pass off immediately after the death of the animal—that it continued, in fact, until the arterial side of the heart and the arteries had had time to empty themselves in the ordinary way. Here, then, are facts (for facts they assuredly are) which show that the powerful pulse which may be present during the epileptic and epileptiform paroxysm may have a very different significance to that which is usually attached to it. Here, indeed, are facts which show that this powerful pulse may be nothing more than the natural pulse of the process of suffocation, the pulse of black blood, the *apnœal pulse*, as it may be called; for it has been seen that the convulsion in which the pulse is full and strong and frequent, is accompanied by a state of unmistakable suffocation. Nay, this is the only conclusion which can be drawn, for with the respiration completely arrested, as it is, it is simply impossible that there can be an increased injection of *red* blood into the arteries during the paroxysm. Nor is it only with reference to the condition of the circulation in convulsion that these facts are of interest. On the contrary, they explain many apparent anomalies in the circulation. For example, they explain how it is that the blood drawn from the temporal artery in a fit has often been black in colour, and projected to an unusual distance; and how, in cases of congestion of the lungs, and in some other cases where the aëration of the blood is greatly interfered with, the pulse may beat with seemingly contradictory power in the very last moments of life. They show, in fact, that the pulse may derive a fictitious power from admission of black blood into the arteries, and that mere power of pulse, apart from the condition of the respiration, may be a very unsafe criterion of vital power.

82. *Convulsion is never coincident with a state of active febrile excitement of the circulation.*

In the fevers of infancy and early childhood, especially in the exanthematous forms of these disorders, convulsion not unfrequently occupies the place which belongs to rigor in the fevers of youth and riper years. It occurs in the cold stage of the fever, when the powers of the circulation are greatly depressed in every way; and it is confined to this stage, except there are certain brain or kidney complications, of which more will have to be said presently. In plain words, it never occurs during the hot stage of the fever, when the circulation is carried on with undue vigour, or during the stage of collapse, when the powers of the nervous system are altogether exhausted.

Convulsion may also occur in certain cases of teething, in certain cases of worms, and in certain other cases in which the circulation is at times very much depressed and at times roused into a certain amount of feverishness; and in these cases I believe it to be a constant rule for the convulsion to be associated with the periods of vascular depression, and not with the periods of vascular reaction. I believe, indeed, that there is something as uncongenial between this form of convulsion and true vascular excitement as there would seem to be between epilepsy and such excitement.

Nor is the case essentially different with respect to the convulsive movements of chorea. A disposition to rheumatic fever would seem to be not uncommon in chorea, at least in this country; but it is not to be supposed that the febrile and choreic symptoms are actually concurrent. On the contrary, there is usually a wide interval of time between the latter symptoms and the former; and thus the predisposition to rheumatic fever, if it exist, cannot be taken as an objection to the idea, now very generally admitted, that chorea is essentially a feverless malady. Indeed, this very predisposition may be taken as an argument that the circulation in chorea is below the normal standard of activity: for is it not a fact that the heart is often damaged by valvular disease, that the "capillary power" is often very defective, and that the circulation, from one cause or another, is always unmistakably wanting in vigour, in persons who are liable to attacks of rheumatic fever?

And thus there is no substantial objection to the proposition that convulsion is never coincident with active febrile excitement of the circulation.

83. *The convulsion which may attend upon the close of*

Bright's disease is connected with a pale and watery condition of the blood, and with unmistakable signs of great vascular debility, as well as with suspicions of uræmic poisoning.

It is not easy to theorize upon the way in which convulsion is brought about when urea is retained in the blood, or rather when this retained urea is resolved into carbonate of ammonia in the blood. The simple fact appears to be that the powers of the circulation become more and more enfeebled as the blood becomes more and more contaminated, and that they are reduced almost to the last degree of feebleness when the convulsion happens; but how to explain the fact is by no means evident. It may be that the uræmic poisoning acts by destroying the blood-corpuscles. Or it may be that the great deficiency of blood-corpuscles, which is a marked characteristic of Bright's disease in its advanced stage, is independent of uræmic poisoning, and more concerned in the production of the head symptoms than the uræmic poisoning. Dr. Watson is of opinion that the pale and watery condition to which the blood is at last reduced in albuminuria may have something to do in bringing about the stupor and coma of the ending scenes of the disorder; and for this good reason, that similar symptoms are apt to ensue, in conjunction with a similar deficiency of hæmatosin, in spurious hydrocephalus: and I am quite disposed to subscribe to this opinion, and to apply it to the interpretation of the convulsion as well as to the interpretation of the stupor and coma. But upon these points, and upon all others connected with them, I must refrain from dilating at present.

84. *Epileptiform convulsion is a direct consequence of sudden and copious loss of blood.*

This fact, which is unhappily too often verified by medical and surgical experience, has already been sufficiently commented upon when speaking on the part which the blood has to play in the physiology of muscular motion (¶ 35). It can, indeed, have only one significance.

85. *The condition of the circulation during convulsion is one which supports the notion that the convulsion is connected with depressed, and not with exalted, vital action.*

All this follows necessarily from what has gone before, if it only be allowed, as it must needs be, that vital action is in direct relation to the activity of the circulation.

EXPERIMENTS
ON THE
RELATIVE RATE OF ABSORPTION FROM THE STOMACH AND RECTUM.

BY WILLIAM S. SAVORY, ESQ., F.R.S.,
ASSISTANT-SURGEON AND LECTURER ON GENERAL ANATOMY AND PHYSIOLOGY, ST. BARTHOLOMEW'S HOSPITAL.

(*Concluded from p. 519.*)

IT will be seen that the results of the following experiments with hydrocyanic acid are, on the whole, similar to those of cyanide of potassium.

The effects produced by hydrocyanic acid, which closely resemble those of cyanide of potassium, are well-marked and familiar ones. Extreme debility, rapidly passing into complete prostration, with sometimes, towards the close, convulsions.

The diluted hydrocyanic acid of the P. L. was employed.

HYDROCYANIC ACID.

RABBITS.

Experiment 30.

5 minims in 5 minims of distilled water...	By rectum to young rabbit	It fell over in convulsions in 1½ min.; death almost immediately after.
,, ,,	By mouth to similar rabbit	Same symptoms, followed by death in same time.

Experiment 31.

1 minim in 9 minims	By mouth to young rabbit	Symptoms of debility commenced in 1 minute. Recovery in 8 minutes.
,, ,,	By rectum to somewhat smaller rabbit	Symptoms commenced within 1 min.; debility more extreme. Recovery more gradual; delayed for more than half hour.

Experiment 32.

1 minim in 9 minims	By mouth to young rabbit	Symptoms commenced within 1 min.; utter prostration shortly after. Recovery in 4 minutes.
,, ,,	By rectum to same rabbit next day; it had completely recovered.	Symptoms in 1½ min.; full effects within 2 min. Recovery in 15 minutes.

Experiment 33.

1 minim in 19 minims	By rectum to small rabbit	Decidedly affected in 1 min.; prostrated in 1½ min. Dead in 7 min.
,, ,,	By mouth to similar rabbit	Affected in the same way in about the same time. Dead in 5 minutes.

Experiment 34.

½ minim in 9½ minims	By mouth to very young rabbit	Affected in 1 min.; prostrated in 2 min. Gradual recovery in 5 or 6 min.
,, ,,	By rectum to similar rabbit	Less affected in between 1 and 2 min.; not prostrated. Gradual recovery in 10 minutes.

Experiment 35.

½ minim in 9½ minims	By rectum to very young rabbit	Affected in 1½ min.; great debility in 2 min.; extreme prostration in 4 min. Gradual recovery in 10 minutes.
,, ,,	By mouth to similar rabbit	Affected in 1½ min.; debility less marked; short of prostration. More gradual recovery.

CATS.

Experiment 36.

2 minims in 18 minims	By rectum to very large cat	Prostrated in 2 minutes. Gradual recovery in 25 minutes.
,, ,,	By mouth to same cat next day: it had quite recovered.	First symptoms commenced in 2 min.; most marked in 7 min., but no prostration. Recovery commenced in 15 minutes.

Experiment 37.

1 minim in 19 minims	By rectum to very large cat	Affected in 2½ min.; not prostrated. Gradual recovery in 6 or 7 minutes.
,, ,,	By mouth to same cat two days after	No visible effect.

This last experiment was repeated with the same result.

The following experiment shows that the effects vary in time, even when the poison is administered in the same way—by the mouth—to the same animal.

Experiment 38.

2 minims in 18 minims	By mouth	Symptoms in 1½ min.; prostrated within 2 min.; fluctuating effects for 1 or 2 min. Gradual recovery in from 5 to 7 minutes.
,, ,,	By mouth to same cat next day: it had completely recovered.	Affected in 1 min.; prostrated almost immediately after. Gradual recovery in 10 minutes.

By *prostration* I mean that the animal lies powerless upon its side.

By *recovery* I mean that the animal is able to walk again. This seemed to me to be the best, or at all events the most marked test that I could adopt.

The effects produced by nicotine are, extreme debility, rapidly passing into utter prostration, with repeated convulsions. When recovery occurs, the effects are very transient.

NICOTINE.

RABBITS.

Experiment 39.

1 drop in 10 minims of alcohol	By mouth	Debility in ¼ min.; prostration in 1½ min. Rapid recovery; able to walk in 3 minutes.
,, ,,	By rectum to same animal	Debility in 1 min. In 2 minutes recovery commenced.

Experiment 40.

¼ drop in 5 minims	By rectum	Marked debility in 1 min.; great debility and convulsions in 2 min. Rapid recovery.
,, ,,	By mouth to same animal	Marked debility in ¾ min.; prostrated in 1 min. Rapid recovery.

Experiment 41.

¼ drop in 5 minims	By rectum	Prostrated in 2 min. Rapid recovery.
,, ,,	By mouth to same rabbit	Prostrated in ¾ min. Rapid recovery.

GUINEA-PIGS.

Experiment 42.

¼ drop in 5 minims	By mouth	No effect.
,, ,,	By rectum to same animal	Slight effects in 10 min.

Experiment 43.

¼ drop in 5 minims	By mouth	Marked debility in 3 or 4 min. Recovery.
,, ,,	By rectum to same animal	Extreme prostration with convulsions in 2½ min. Death in 8 min.

CAT.

Experiment 44.

1 drop in 10 minims	By rectum	In 9 min. extreme sickness and diarrhœa. Recovery.
,, ,,	By mouth to same cat next day, which had quite recovered.	Obvious debility in 1 min.; utter prostration with convulsions in 3 or 4 min. Death in 15 min.

With regard to nicotine, an alkaloid in the form of a volatile oil, it would seem that, as a rule,—to which, however, exceptions frequently occur,—the energy and rapidity of its effects are somewhat greater when it is absorbed from the first portion of the alimentary canal than when it passes into the system through the rectum.

I have experimented with other poisons, but with uncertain results, owing to the fact that the first symptoms produced are dubious, or supervene too gradually. Atropia and morphia, for examples, either fail in ordinary doses to affect some of the lower animals, or the symptoms are so remote and obscure as to interfere with exact observation of the time of their occurrence.

Let me, however, here remark, that in the case of no single substance which I have employed has the advantage of the stomach over the rectum appeared to be so great, or even nearly so, as it is generally believed to be. The difference observed in favour of the stomach has never been so marked and uniform as the manifest and unequivocal difference, in the case of strychnia, in favour of the rectum.

With a view of testing the influence of gastric juice upon strychnia I performed the following experiments:—

Experiment 45.—Into the rectum of a dog of moderate size I injected twenty minims of the solution, containing one grain of strychnia, which had been previously mixed with half a drachm of pure gastric juice obtained from the stomach of a cat, and then set aside for twenty hours. In the course of a minute or two fatal spasms supervened.

Experiment 46.—I injected into the rectum of a cat two minims of a solution, containing one-tenth of a grain of strychnia, which had been mixed with ten minims of pure gastric juice obtained from a guinea-pig, and kept for ten minutes at 100° Fahr. In from seven to ten minutes fatal spasms supervened.

Experiment 47.—Five minims of the solution, containing a quarter of a grain of strychnia, were mixed with fifty-five minims of pure gastric juice obtained from a dog. The mixture was exposed for a few minutes to 100° Fahr. Five minims of this, containing, therefore, the forty-eighth of a grain of strychnia, were then injected into the rectum of a cat. She had slight spasms in half an hour.

Experiment 48.—Four grains of pure strychnia were placed in an ounce of pure gastric juice obtained through a gastric fistula from the stomach of a dog. It was exposed for more than six hours to 100° Fahr. At the end of that time, it being only partially dissolved, the solution was completed by the addition of ten minims of acetic acid. It was kept at about 80° Fahr. for thirty hours longer.

Half a drachm of the solution, containing a quarter of a grain of strychnia, was poured down the throat of a pigeon. In six minutes a severe spasm ensued, and this was soon followed by others. The bird was killed to avoid suffering.

I introduced into the rectum of a kitten three days old, seven minims of the same solution, containing about the sixteenth of a grain of strychnia. In five minutes it had a very severe spasm, a repetition of which proved fatal.

Experiment 49.—Four grains of strychnia were dissolved in an ounce of gastric juice, obtained from the stomach of a dog, by the addition of ten minims of acetic acid.

I gave a drachm of this solution, containing, therefore, half a grain of strychnia, which I had previously kept for many weeks, to a large cook pigeon by the rectum. It died in a severe spasm almost immediately. It never moved after it was released.

I introduced the same dose into the crop of a smaller hen pigeon. For ten minutes no visible effect ensued. The bird seemed well, and picked up grain. Then a slight spasm supervened, followed by others much more severe, and in fifteen minutes the bird was dead.

The contrast between the two cases was a striking one.

I have made other experiments on this subject in various ways, but in none of them have I observed that the admixture of gastric juice produced any modification in the effects.

From these experiments it would appear, then, that the less rapid and energetic effects of strychnia upon the system when introduced by the stomach than by the rectum cannot be ascribed to any change produced in it by the chemical action of the gastric juice.

I performed the following experiments with a view of ascertaining whether the presence of food in the stomach exercises any material influence upon the results.

Experiment 50.—To a rabbit, immediately after a full meal of cabbage-leaves, I gave, by the mouth, ten minims of the solution, containing half a grain of strychnia. In twenty-eight minutes it had a severe spasm, which after a while proved fatal.

To another rabbit, after fasting for twelve hours, I gave a similar dose in the same way. In twenty-eight minutes it had severe spasms, which at length proved fatal. This rabbit was larger, and resisted the effects longer.

Experiment 51.—I injected into the stomach of a rabbit two months old, after a full meal of oats and cabbage-leaves, five minims of the solution of strychnia in gastric juice described in Experiment 48, containing, therefore, the twenty-fourth of a grain. In nine minutes a severe spasm ensued, which in six or seven minutes more proved fatal. After death the stomach was found full of food.

To another rabbit from the same litter I gave in the same way a similar dose—five minims, equal to the twenty-fourth of a grain of strychnia—after a full meal. In this instance a severe spasm occurred in two minutes, which within two minutes more proved fatal. After death the stomach was found full of food.

There was no apparent cause to which I could attribute the striking difference in the results of these two experiments.

After a rabbit two months old, of the same litter as those used in the last two cases, had been kept fasting twenty-one hours, I injected into its stomach five minims of the same solution, containing the twenty-fourth of a grain of strychnia. A fatal spasm occurred within one minute, and in less than a minute and a half the rabbit was dead. The stomach was found contracted to about half its full size upon a small quantity of food, which was in great measure digested.

I repeated the experiment in the same way upon another rabbit of the same litter, which had fasted for the same length of time. In this case the effects commenced in about four minutes, much more gradually, with twitching and starting. A severe spasm occurred in between five and six minutes. In from seven to eight minutes the rabbit was dead. The stomach was found contracted to about half its full size upon well-digested food.

I cannot account for the difference observed in these two experiments.

Neither from these, then, nor from other experiments which were alike variable in their results, did I obtain any consistent or satisfactory evidence to show that the effects of strychnia in solution are constantly or materially influenced by the presence of food in the stomach. I imagine, however, that something may depend upon whether the solution comes at once into direct contact with the gastric walls.

I made some experiments to ascertain to what extent the action of strychnia is modified by introducing it in a solid form.

Experiment 52.—After a cat had fasted forty-eight hours I gave him a full meal of meat, and immediately after, while he was under chloroform, I passed far into the rectum two pills of bread, each containing a quarter of a grain of strychnia. They had been made three days and were rather hard. Therefore half a grain of strychnia was thus administered. The cat remained perfectly well for fifty-two minutes afterwards. Then he became somewhat restless. In fifty-five minutes there was perceptible stiffness about the hinder extremities, causing a peculiarity of gait. The front portion of the body appeared to be unaffected. In seven minutes there was a decided spasm. After this for a while the cat seemed more composed. Other spasms followed at no distant intervals, and in two hours and ten minutes the cat was dead.

I passed into the œsophagus of a cat, under chloroform, which had fasted for twenty-four hours after a full meal, two pills, each containing a quarter of a grain of strychnia made up with bread. One of them he returned in a few minutes, but he swallowed the other, thus taking in a pill a quarter of a grain of strychnia. Slight spasms appeared in fifteen minutes. The cat was then killed to avoid suffering.

Experiment 53.—I gave to a dog, immediately after a full meal, two bread pills, each containing a quarter of a grain of strychnia, by the mouth. In fifteen minutes a decided spasm appeared, and in two minutes more the dog was dead.

I gave to a dog two bread pills, each containing a quarter of a grain of strychnia, by the rectum. No effects were produced at the end of two hours, but he was found dead a short time after.

As would be expected, therefore, not only is the action of strychnia very much delayed by introducing it otherwise than in solution—delayed to an extent proportionate, no doubt, to the difficulty with which it is dissolved,—but in this state it acts more rapidly when introduced by the stomach than by the rectum. There cannot be a doubt that this is due to the solvent action of the gastric juice. If substances in a state of solution fit for absorption can find their way into the system more rapidly through the rectum than through the stomach, yet the solvent power of the fluids of the rectum upon solid substances cannot, of course, be compared to that of the gastric juice.

I have delayed the publication of these experiments in the hope of being able to add to them some observations on the human subject. But there are here so many difficulties in the way of obtaining unequivocal evidence, that I have now put forward these experiments, not as the most striking, but as fair representative ones of those I have performed upon animals, in order that if any should deem them worthy of attention, the observation of others may be directed to what seems to me to be an important subject.

AN ACCOUNT
OF AN
ATTEMPT TO RESTORE TO ITS NATURAL APPEARANCE A PUTREFIED DEAD BODY, IN ORDER TO PROVE ITS IDENTITY.

BY BENJAMIN WARD RICHARDSON, M.A., M.D.,
SENIOR PHYSICIAN TO THE ROYAL INFIRMARY FOR DISEASES OF THE CHEST.

ON Saturday the 9th instant, I conducted an inquiry to ascertain if a human body that had undergone putrefactive change to such a degree that it was unrecognizable could be so far restored to the appearance of life as to be sworn upon in respect to its identity.

As the inquiry in question, from the circumstances by which it was surrounded, has created great public interest, as it opens a new line of research in regard to a medico-legal question of a very important nature, and as certain imperfect impressions are afloat concerning it, I take the opportunity of laying the exact scientific facts before the profession at the earliest possible moment.

To make every point clear to provincial and foreign brethren, let me state the simple narrative of the facts in the first place. Some weeks ago a woman named Emma Jackson was murdered in St. Giles's by having her throat cut in a house of ill-fame, to which she had retired with a man who had been seen by at least three persons, and whose appearance was clearly defined by them. This man, by some strange and almost inexplicable method, made his escape from the house without being seen to depart, and has not since been detected. Several persons have, however, been suspected, and one or two have been temporarily detained, but on examination they have been discharged.

On Monday, May 4th, a man was dragged dead from the Thames who in many respects seemed to answer to the description given of the assumed murderer. On the following Wednesday Mr. Humphreys, the coroner for East Middlesex, held an inquest on the body of this man, but decomposition had advanced so far that none of the witnesses could arrive at any conclusion whatever respecting the body: it was, in fact, utterly unrecognizable. This statement having been made in the public papers on Thursday morning, I formed an opinion, derived from some researches on dead tissues, that it might be possible to alter the appearance of the body so much as to enable the witnesses to speak to its identity. In the afternoon of Thursday last I met, accidentally, Dr. Lankester, who had held the inquest over the body of Emma Jackson, and I explained to him my views. He urged me very strongly to communicate with Mr. Humphreys. I did so, and through the kind aid of Dr. Edmunds got an interview with Mr. Humphreys on Friday night. Having given him an outline of the plan I proposed to follow, he deputed me to carry out the attempt, and requested Dr. Edmunds to be present and take part in conducting the suggested process. We were to act at once, as the adjourned inquest was to be held on Saturday.

At half-past ten on Saturday we were taken to the dead man, who was lying in a shell in the dead-house in Darby-street, Tower-hill. He was dressed as he was when taken out of the water. His body generally, with the exception of the hands, was deeply discoloured, and the face was so changed that it was quite impossible to form any opinion respecting either its colour or feature: it was as black as the face of the darkest negro, and had it not been white when he was taken out of the water I should say that the man would have been returned as a negro. The lips were enormously distended, and the nose was scarcely visible; the cheeks and eyelids were also greatly distended. In fact, the putrefactive changes were so advanced that it required some little determination to proceed. Following, nevertheless, the course I had marked out, we immersed the body in water, and then added to the water twenty pounds of common salt; we also added gradually, in the course of the operation, one pint of common hydrochloric acid; and the body was allowed to remain under this solution for two hours. The object of this part of the process was to reduce the swelling of the features by exosmosis. The shell, being water-tight, answered as a bath.

Meanwhile we charged a pail of water with fresh chlorine, and then, lifting the face out of the water in the shell, treated it with the chlorine water. I also directed a stream of chlorine gas for some time upon the face. The object of this part of the process was to restore the white colour.

A little before one o'clock both of the intentions we had in view were realized to a considerable degree. The tumefaction was relieved; and the face, from the deepest black, had become of the cast of light clay, common wood-ash, or the darker sort of straw-paper. When the chlorine in vapour was passing over the face the skin approached to white, but so soon as it was withdrawn the change to clay-like hue returned. So much was now accomplished that we were able to form a fair estimate of the man. We found that he was evidently a young man, not more probably than twenty-one years of age; he had a short feeble moustache; his lower lip had a short soft beard that had not been shaven, and his whiskers corresponded; his face was naturally round and full, and indeed his body generally was well nourished.

At one o'clock we left, and returned at two. We had arranged that a stream of chlorine should continue to play over the face in our absence, but, as we had no one to leave in charge, the gas had become exhausted, and the face was a little darker when we returned.

Pursuing still the course I had prearranged, we opened the body. We found the viscera but little decomposed, and natural; the heart was empty and flaccid; the lungs free from congestion. We fixed a large tube in the aorta, through the left ventricle; and Dr. Edmunds tied the aorta in the thorax, so as to prevent any passage of fluid to the lower part of the body, and to the abdominal viscera. Then we injected a solution, consisting of chlorine water, chloride of zinc, and a little sesquichloride of iron. The object in this instance was to impregnate the tissues from within with the decolorizing agent, and to reduce the tumefaction. On forcing the injection, we found that great escape took place through the vessels that had been divided in opening the thorax. We therefore withdrew the tube from the aorta, and as the face was the part chiefly requiring attention, Dr. Edmunds laid bare the common carotid on the right side, and a small nozzle from the syringe was introduced into that vessel and tied. It must be understood that much care was required in forcing the injection through structures so decomposed and yielding, and that we dare not push this part of the operation too far. Had we used much force we should have produced extensive infiltration through the broken capillaries, and have destroyed the facial structures altogether. So soon, therefore, as the face was subjected to slight tension the injection process was stopped. The time had now approached for the sitting of the jury at half-past four P.M. We allowed all the water to drain away, drenched the body with pure water, and left it with the face covered with a piece of thick cloth, on which was poured a little hydrochloric acid and methylated alcohol. The face at this time was of a clayey colour, and a little more full than natural; and although we felt that we had not brought it up to its perfect natural appearance, we believed that it might be recognizable by anyone who had seen it during life, and especially that it was a face which a witness could swear was not that of any particular person whom he remembered, if there were not strong natural resemblances between the two.

The result indicated that we had effected even more than we had anticipated, and that, if we had not succeeded to the perfection we could have wished, we had fulfilled the practical part of our mission and all that was demanded of us; for the three witnesses who were there either to confirm or disprove the hypothesis that the man before them was the man last seen with the murdered woman, each and all swore without hesitation, on their second view of the unknown man, that he was *not* the assumed murderer.

Margaret Curley, of 4, George-street, St. Giles's, swore that she had examined the deceased since the operation had been performed, but that she did not recognise him as a person she had seen before, nor as the person suspected; Charles Ansley, of 20, Peter-street, bore the same testimony; and H. Stoke, the shoe-man, swore definitely that, from his inspection of the deceased since the operation, he was sure that he was not the man whom he had seen with Emma Jackson. The Coroner, in summing up, observed that the experiments made having enabled the witnesses to swear that the deceased man was not the man accused of the murder, they had fulfilled their purpose, and the jury returned a verdict in accordance with the evidence.

Reflections and suggestions.—The fact that in a case so extreme as the one named, science has come in to render essential aid to justice, affords, I hope, subject for thought and renewed effort in the same direction. I am far from considering that we ought to stop where we have thus begun. I look upon this case, in fact, as a mere first and experimental trial, which followed up will lead to great perfection in one department of medical jurisprudence; and I feel, consequently, that I cannot conclude this paper better than by pointing out what improvements in the process have been suggested to me by the experience detailed above.

1. In respect to time. On another occasion I would ask to be allowed at least twenty-four hours for the performance of the process. The period of six hours was insufficient for the full development of the required changes.

2. I should proceed by stripping the subject of all apparel.

3. After this the subject should be placed in a water-tight shell, in which a large tap for escape of water should be inserted, and the body should be thoroughly washed with water.

4. After the washing the body should be covered with water, and held beneath it by a few cross bars of wood. Then the lid of the shell should be temporarily but effectually closed down, and two openings should be made into the lid; through one of these openings the free end of a tube, connected with a chlorine flask, should be passed beneath the surface of the water; while from the other opening should come another tube, the free end of which should turn over into a glass globe of water. These preliminaries arranged, fresh chlorine should be driven in until the water within is saturated by it, the fact of saturation being determined by the passage of chlorine through the escape-tube. When the water around the body should thus become charged with chlorine, the openings in the lid of the shell should be closed, and the whole should be left undisturbed for twelve hours.

5. On opening the lid after the interval of time named, common salt should be added to the water, until the hydrometer should stand several degrees above the specific gravity of the blood: the specific gravity of 1100 would answer for the solution. In this solution the body should remain immersed for twelve hours; the water should then be drawn off and the body examined.

[If there were no deep decomposition and discoloration, the body, I believe, would now be ready for identification; but if the putrefaction were very deep-seated, it would be requisite to proceed further.]

6. If necessary, open the trunk of the body at this point, and make any post-mortem observations that may be required. The head should not be opened at this stage.

7. After the post-mortem examination, in order to restore a more natural expression to the face, solutions should be injected into the external carotid of each side. The form of solutions I should suggest in another case would be—

(*a*) Water saturated with chlorine, and charged, in addition, with tincture of the sesquichloride of iron in the proportion of two fluid drachms to the pint.

(*b*) Common fresh milk saturated with common salt.

Of injection *a*, I would recommend that from two to three ounces should be slowly injected on each side, to be followed, without removing the nozzle of the syringe from the vessel, by so much of solution *b* as should cause the slightest possible tension on the tissues of the face.

Lastly, if it were requisite to retain the body for some time, it would be advisable to cover it with wood spirit, containing one drachm to the gallon of the tincture of sesquichloride of iron, and to exclude it from the air.

In offering these suggestions, I beg that they may be accepted as open to revision: the principle recognised, the details are certain, under experiment, to be simplified and improved.

In conclusion, I have to offer my warmest thanks to Dr. Edmunds for the energetic, friendly, and able part which he took in the very interesting inquiry to which I have called attention. His exertions contributed in a most important manner to the results obtained.

Hinde-street, Manchester-square, May, 1863.

ON IDIOPATHIC ANÆMIA.

BY S. O. HABERSHON, M.D. LOND., F.R.C.P.,
SENIOR ASSISTANT-PHYSICIAN TO, AND LECTURER ON MATERIA MEDICA AT, GUY'S HOSPITAL.

(*Concluded from p. 510.*)

IN the treatment of these cases many patients, at an early stage, completely recover under the influence of bracing air, nutrient and stimulating diet, aided by the preparations of iron. The power of healthy assimilation is gradually restored, and the functions of the mind, as well as of the body, are performed in a vigorous manner; the red corpuscles of the blood increase in quantity, and with returning colour we find restoration of health. Sometimes there is great advantage in combining quinine with the steel, and, if necessary, aloetic purgatives, or the extract of nux vomica, in small doses, may be added. Thus half a grain of the sulphate of iron, with one grain of quinine, one grain of the aloetic pill, and one grain of extract of henbane, taken twice a day after a meal, often agree exceedingly well; and better than when administered in a fluid state. In some instances, even small doses of the nux vomica have been followed by faintness, and I generally omit it altogether; and I have witnessed the same effect after very minute doses of strychnia.

Irritability of the stomach is a common symptom, and with difficulty checked; ice, bismuth, with soda and chloric ether, minute doses of morphia and hydrocyanic acid, lime water, the

effervescent salines, carbonic acid, alone or in combination, may be used. Occasionally counter-irritation at the scrobiculus cordis gives some relief, but I am not partial to it as a remedy; nor have I found the same amount of benefit from the preparations of silver and creasote as in some other states of gastric irritation. Afterwards, dilute hydrochloric acid, with vegetable infusions, may be tried, not only as a tonic, but to facilitate the solution of food.

As diet, milk, with lime-water in small quantities, and often repeated, or mutton broth; arrowroot, or other farinaceous food, may be also given, made with milk or with water; and, if there be great prostration, stimulants may be conjoined. Nutrient enemata are certainly beneficial in many instances. Electricity, which in some cases of chlorosis has been followed by a speedy cure, is not, apparently, of any service in this more severe malady. Nor have I witnessed any benefit from pepsine. In the excessive anæmia and prostration which exist in such an instance as we have detailed, no remedy, however, is of any permanent benefit, and the patient very gradually, but with steady course, loses strength and power, till life ceases from simple exhaustion. The stomach becomes, apparently, incapable of tolerating the presence of food, even when the patient can be persuaded to swallow it; so that the solution and absorption of it in sufficient quantity to sustain life are rendered almost impossible; and, in proportion as the nervous exhaustion increases, the morbid state of the stomach is also aggravated; the one reacts upon the other, each increasing the other's defect. In the exhaustion from over lactation, or from extreme mental distress, the same gastric inefficiency exists; there is the same complete loss of appetite, disinclination to take food, and, if swallowed, it will remain undissolved, and vomiting or faintness will follow; in the latter cases, however, the nervous exhaustion may be taken away, either by the removal of the cause of depression, or by the soothing effect of passing time and right treatment. Not so in the former; in them the nerve-strength and gastric power decline, *pari passu*, till they cease together.

Several other cases of anæmia are appended, different in kind, but each possessing great individual interest.

Anæmia; diabetes insipidus; roseola; irritability of stomach; relief by Turkish bath.—Henry T——, aged twenty-five, was admitted into Guy's Hospital, under my care, April 2nd, 1862. He was a spare man, married, and by trade a bricklayer; and some years ago he had had syphilis. Ten weeks before admission he had pain in his head, and his sight became confused, so that he was scarcely able to walk about; but the sight has been partially restored. Five weeks later he had thirst, and three weeks later still began to pass large quantities of urine. On admission, he was passing about a gallon of urine in the twenty-four hours; his skin was very dry and chippy; and his face had a red, patchy, and somewhat scaly appearance, as if he was convalescent from scarlet fever or erysipelas; there had, however, been no such illness. There was no sweetness of the breath, nor sponginess of the gums; the urine was pale and clear, and free from albumen and sugar. His appetite was very poor; the stomach irritable; tongue clean; pulse very compressible. There was no evidence of any disease of the lungs or heart; the abdomen was supple and free from pain. He was ordered quinine.

On the 5th, the stomach was very irritable—food almost at once rejected; and finding that some years ago he had had syphilis, effervescing mixture with iodide of potassium was prescribed. Meat diet, with bread and vegetables, was allowed.

On the 9th, the redness of the face was not general, but there were red and circular patches, slightly raised, and dusky in colour; the redness disappeared on pressure, and the erythematous patches were almost continuous. The skin was roughened; occasionally, however, the skin became pale. The pulse was very compressible; the stomach still irritable; and the urine large in quantity (about ten pints), sp. gr. 1005. Soda-water and brandy were ordered.

16th.—There was less vomiting; the face was still in the same state; the skin very dry; the urine as before; but the patient said that he felt better.

On the 26th there was less prostration, but the general symptoms were the same.

On May 4th, violent sickness came on for several hours.

On the 10th he had a Turkish bath, which produced profuse perspiration and suppleness of the skin; the pulse became firmer, and his symptoms were all relieved. On the following day he continued better, and the face had lost its red and patchy appearance; and on the 12th he left the hospital, greatly relieved. The urine was, however, still in considerable excess (six to eight pints), and of the same general character.

Remarks.—This case was an obscure one. Irritability of stomach, with polydipsia, and a dry desquamative condition of the skin, were the principal symptoms. The prostration was extreme; but saline effervescing medicine with iodide of potassium, and stimulants, afforded partial relief. The action of a Turkish bath in producing powerful diaphoresis certainly afforded most efficient help in the treatment of this patient, and greatly conduced to his recovery.

Anæmia; bronzed skin; relieved; disease of supra-renal capsules (?); *periostitis.*—Eliza F——, aged forty-one, was admitted under my care into Guy's Hospital, April 9th, 1862. She was a married woman, who had resided at the Lower-road, near the Surrey-canal. Five years previously she had "bilious fever," when she had vomiting, but no purging, and was confined to her bed for six weeks. Three years before admission she vomited blood, but did not reject food. Till two years menstruation had been profuse; it then ceased altogether. There had been no return of vomiting; but the prostration of strength had become extreme. For three weeks she had pain in the legs, shoulders, and back; pain came on across the chest; there was no vomiting, and the bowels were regular. On admission there was slight cough, and the pulse was very feeble and compressible. She was short in stature, the countenance was bronzed, and she so weak that she was scarcely able to stand. There was no evidence of disease of the heart or lungs; but slight tenderness at the scrobiculus cordis on pressure. She was ordered three ounces of brandy, and ten grains of the ammonio-citrate of iron was given in julep of ammonia three times a day, and nourishing diet allowed. The brandy was afterwards changed to wine. Her strength slowly returned; but on April 29th she complained of great pain in the left shin. The periosteum was thickened and very tender, and the pain was more severe at night. There was melasma ab igne on the legs. The pulse was rather stronger. Three grains of iodide of potassium was given with the ammonia instead of the iron. The pain in the legs gradually ceased, the thickening disappeared, the colour was less deep, and her strength returned, so that she was able to get about the wards and go into the hospital grounds. On May 27th she was desirous of going home, and left the hospital greatly relieved.

Remarks.—This patient had the bronzed complexion, with excessive prostration, and with previous irritability of the stomach; but the occurrence of periostitis, and the amount of relief afforded, not only to the pain and periosteal thickening, but to the prostration and deep sallowness of the complexion, rendered it doubtful whether the disease did not principally consist in syphilitic cachexia.

Anæmia following jaundice after gall-stone; purpura hæmorrhagica; relieved.—Mary S——, aged forty-five, was admitted into Guy's Hospital under my care April 23rd, 1862. She had been a widow for two years, and resided at Camden-town. Menstruation had ceased for six months. In December, 1861, after great mental anxiety, sudden pain came on across the abdomen, vomiting, and in a few days jaundice. These symptoms were referred to gall-stone; and although the jaundice had almost gone when she came under my care, she had continued weak and prostrate. Seven weeks before admission pain in the back and at the stomach came on; she was then anæmic, slightly sallow, and emaciated; she suffered from headache, and from pain at the region of the pylorus, brought on especially by solid food; food of that kind brought on severe pain, or was rejected; the bowels were constipated, and the evacuations pale; the tongue slightly furred at the back; the heart was normal, but its action feeble; there was no disease of the chest, but the respiration on the right side was more coarse than on the left; the abdomen was contracted; dulness in the right hypochondriac region extended nearly to the umbilicus, and the surface of the enlarged liver did not feel perfectly smooth; there were some enlarged glands in the neck on the right side, and in the right axilla; the urine was clear, and free from both bile and albumen. Dilute hydrochloric acid, with compound infusion of senna and of orange-peel, being found to agree with the stomach, were substituted for the effervescing mixture; and, as an alterative aperient, one grain of podophyllin, with two grains of extract of henbane, every morning. She seemed to improve in health, but on May 24th she stated that on the previous day dark spots suddenly appeared on the skin, with bleeding from the gums; a slight tingling sensation was produced in the skin; and while she watched the part spots of greenish discoloration, equal in size to a half-crown, gradually formed; these were on the arms and legs. Other small petechial spots were observed. There was semi-coagulated blood adhering to the gums and tongue, and about half a pint had been expectorated; the tongue was

otherwise clean. The pulse was sharp and rather irritable; the bowels open; no blood in the motions nor in the urine; no headache; patient tolerably cheerful. She was ordered ice in the mouth, eight ounces of wine, and half a drachm of tincture of iron with two grains of quinine in water three times a day.

On May 26th the bleeding continued, but in a less degree; and there were numerous spots on the arms, &c.

27th.—Bleeding less, but the patient was prostrate. Greens, and two ounces of brandy with ten ounces of wine, were given.

31st.—The bleeding returned, and she had a waxen countenance.

June 4th.—She was much blanched. To continue the same treatment.

7th.—Bleeding ceased for several days. Tongue clean; spots disappearing; pulse hæmorrhagic; countenance very pallid.

14th.—No return of bleeding; colour returning. She feels stronger.

July 8th.—Steadily gaining strength. The symptoms greatly relieved, and no trace of the purpura.

Remarks.—The onset of this affection resembled that of gall-stone; but the continued enlargement of the liver, the pain at the pyloric region, and especially the enlargement of the glands in the neck and axilla, led me to fear organic disease. The sudden occurrence of purpura hæmorrhagica was remarkable; in half an hour, bleeding into the skin and from the gums became very severe. She described the onset of the ecchymosis in the skin as being preceded by a smarting, pricking pain, and whilst she watched, discoloration took place. The amount of blood lost was very great, and the patient became completely blanched. Stimulants were given very freely, and tincture of iron with quinine administered every few hours. The symptoms slowly subsided, and the patient left the hospital anæmic, but her dyspeptic symptoms were greatly relieved. After a few months jaundice again came on, and she applied as an out-patient. The symptoms have again subsided, but the return of enlargement of the glands renewed the original suspicion of organic disease.

Wimpole-street, May, 1863.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

TUESDAY, APRIL 28TH, 1863.

MR. PARTRIDGE, PRESIDENT.

ON A REMARKABLE CASE OF INJURY OF THE HEAD, IN WHICH THE RIGHT RESTIFORM BODY AND THE RIGHT POSTERIOR COLUMN OF THE SPINAL CORD WERE DIVIDED TRANSVERSELY; WITH REMARKS.

BY A. T. H. WATERS, M.D.,
PHYSICIAN TO THE LIVERPOOL NORTHERN HOSPITAL.

THE following is a brief abstract of the case:—

John M'Bride, a sailor, aged twenty-three, was admitted into the Liverpool Northern Hospital about noon on the 19th of February, 1863. He had received a blow on the side of the face on the previous day from a capstan bar, which stunned him for a short time. On presenting himself at the hospital he was able to walk with assistance. When seen by the author he was in bed. He was quite conscious, understood everything, and spoke rationally and distinctly, although articulation was not quite perfect. He complained of slight dizziness of the head, and slight numbness of the right side of the face and of the right arm and leg. He was unable to swallow, and had constant hiccough. The face was dusky; the breathing quiet; the pulse 100, and regular; the tongue was protruded in a straight line; the uvula was drawn to the right side. There was partial loss of power over the right side of the face, and right arm and leg; both these limbs could, however, be readily raised. He could open and shut both eyes. The pupils were rather dilated; the eyeballs constantly rolling about. No affection of vision or of hearing was complained of. The right side of the face and the right arm and leg were of higher temperature than the corresponding parts of the opposite side. The patient said he could distinctly feel when touched on either side of the face, on either foot, leg, or arm. Sensation appeared slightly less perfect on the right side than on the left, *but on both sides it was good.* The patient died, somewhat suddenly, at five P.M. on the day of admission, after an ineffectual attempt to swallow. He had survived the accident about twenty-four hours.

After death the cranial bones and the vertebræ were found unfractured. The cerebrum was healthy. There was a considerable quantity of slightly coloured fluid at the base of the skull and in the spinal canal; the venous sinuses were very full of blood; the right hemisphere of the cerebellum was slightly and very superficially lacerated on its under surface, close by the side of the right restiform body. The medulla oblongata at its posterior aspect and right side was the seat of an extravasation of blood lying beneath the pia mater. This extravasation was into the nervous substance, and was connected with lacerations of that structure. The parts having been hardened in spirit, two transverse lacerations were found connected by a vertical one. The first or superior laceration involved the right restiform body about its middle; the laceration extended to within a very short distance of the median furrow of the fourth ventricle behind; to the outer side and in front the laceration extended as far as the line of origin of the eighth pair of nerves. Blood was effused between the lacerated parts, and separated them from each other. The nervous substance in the adjacent parts was also infiltrated with blood. The median furrow of the fourth ventricle was pushed a little towards the left side. As far as it was possible to judge, this laceration involved the whole, or very nearly the whole, of the fibres of the right restiform body, and a portion of the grey matter spread out on the floor of the fourth ventricle. None of the roots of the eighth pair of nerves were torn; but the laceration extended close to the superficial origin of the glosso-pharyngeal and par vagum, and no doubt involved their deep fibres. The second or lower laceration was situated just below and to the right of the nib of the calamus scriptorius. It had divided that part which is known as the posterior pyramid and the tract outside of it, which is the continuation of the posterior column of the spinal cord. The laceration extended about two lines into the nervous substance; it stopped behind at the median fissure, and externally it did not extend beyond the line of attachment of the posterior roots of the spinal nerves. Blood was effused as at the upper laceration. These two lacerations were connected by a vertical one, which ran down along the inner side of the restiform body, and terminated below by joining the inner part of the lower laceration. The lungs were loaded with black blood. The heart was healthy.

The author remarked that the importance of the case was in the fact that the parts which were formerly supposed by most physiologists, and still are by some, to be the sensitive tracts, were divided on one side without loss of sensation ensuing. The case was remarkable as presenting us with a repetition in a healthy man of those experiments so often performed on the lower animals by the physiologist—namely, division of certain portions of the cord or medulla.

The results of the case tended to confirm the views recently advanced by some physiologists, that the posterior columns of the cord and the restiform bodies are not the channels by which the posterior roots of the spinal nerves communicate with the sensorium; and to refute the opinion that those structures are concerned in that function.

With regard to the minor symptoms, they for the most part agreed in a remarkable manner with the lesion which was found. So severe a laceration of the restiform body could scarcely happen without involving the deep origin of the facial, the glosso-pharyngeal, and the pneumogastric nerves. Hence the symptoms of paralysis about the face &c. which had been referred to. The immediate cause of death appeared to have been a sudden arrest of the function of breathing.

A CONTRIBUTION TO THE PATHOLOGY OF THE CRURA CEREBRI.

BY DR. HERMANN WEBER.

After some preliminary remarks on the rare occurrence of diseases of the crura cerebri uncomplicated with other affections of the brain, Dr. H. Weber related the following case:—

A man aged fifty-two, affected with disease of the aortic valves, hypertrophy of the left ventricle, and rigidity of the larger arteries, had during the last years of life frequent tinnitus aurium, a dull but moderate headache, disturbed sleep, and anxious dreams. Two months before death, there occurred sudden paralysis of the *right side of the body* (limbs, trunk, and face) as to motion and sensation, and of the muscles of the *left eye* supplied by the third nerve, with dilatation of the *left* pupil; disturbance of vision only slight—viz., imperfect double vision when using both eyes combined, and impaired accommodation when using the *left* eye alone; the other special senses and the intellectual faculties unaffected; slow and irregular pulse;

obstinate constipation; increased temperature in the paralysed limbs. The paralysis of the right side of the face, the soft palate, the tongue, and the trunk had been from the beginning less complete, and became gradually much diminished, as well with regard to motion as to sensation; that of the limbs, on the contrary, remained almost complete with respect to motion, while the sensation gradually improved. The paralysed muscles of the left eye regained their function only very imperfectly; and the left pupil, too, remained much dilated. The obstinate constipation continued. About eight days before death, symptoms of broncho-pneumonia and pleuritis, especially of the right side, came on. Death took place two months after the seizure.

Post-mortem examination.—Phenomena of recent broncho-pneumonia and pleuritis occupying the greater portion of the right lung, and existing only in a very limited manner in the lower lobe of the left lung. Hypertrophy of the left ventricle of the heart, with disease of the aortic valves (rigidity through atheromatous deposit, stenosis of the orifice, and insufficient closure). Extensive atheromatous affection of the arterial system, and especially of the cerebral arteries. Hæmorrhage into the inferior and internal portion of the left crus cerebri, the cavity being about six-tenths of an inch long, and five-twentieths of an inch broad, and as deep; it was situated close to the surface, and in immediate contact with the third nerve, the nerve-fibres of which were degenerated. The tissue of the crus round the cavity was hardened in the thickness of about one-fifteenth of an inch. The remainder of the left crus and the other portions of the brain were normal.

Dr. Weber remarked that the diagnosis in this case had been comparatively easy. The sudden paralysis of the right side of the body, with paralysis of the third nerve of the left side, and with immunity of the mental faculties and special senses, pointed unmistakably to an affection near the base of the left hemisphere, and in immediate connexion with the third nerve, therefore also the crus cerebri. The fact that none of the other cranial nerves were affected indicated that the morbid condition was confined to a small spot, and the existence of the disease of the arterial system recognised during life rendered hæmorrhage more probable than any other alteration. Dr. Weber thought under similar circumstances an almost accurate diagnosis might be always ventured.

The author then gave an account of the two only cases of an analogous nature which he had met with in medical literature: the one related by Andral ("Clinique Médicale," tome v., p. 339, 1834), the other by P. H. Green ("Medico-Chirurgical Transactions," vol. xxv., p. 195), the main symptoms of both cases being in accordance with those observed by himself. He then touched upon the symptoms produced by section of the crura cerebri in animals, especially the circus movements described by Magendie, Lafarque, Longet, Schiff, and other physiologists, the absence of hemiplegia, and the occurrence of hyperæsthesia on the side of the lesion noted by Schiff. Dr. Weber did not endeavour to explain the discrepancy between the results of vivisections and the symptoms of disease in man. He alluded, however, to the differences in the pathological and experimental lesions themselves, and also in the connexion of the different portions of the brain between themselves in man and animals. He wished by no means to disregard the results of the physiological experiment; but, on the contrary, thought that whenever any discrepancy existed, we ought to be very cautious in drawing inferences from pathological observations. He therefore did not consider as certain, but only as probable results of lesions of the centre, the internal and lower portions of the crura cerebri in man (the only parts which were diseased in the three cases related):—1. Almost perfect paralysis of the limbs of the opposite side as to motion, and great impairment as to sensation. 2. Less complete and more transitory paralysis of the opposite side of the trunk, of the face, soft palate, and tongue, as to motion and sensation (leaving the muscles of the eye intact). 3. A similar, but perhaps more permanent, impairment of the pneumogastric and sympathetic nerves of the opposite side. 4. A great retardation in the functions of the intestinal canal. 5. Immunity of the intellectual faculties and special senses. 6. Paralysis of the third nerve on the side of the lesion, if the latter affects the nerve substance adjacent to the point of issue of that nerve.

Dr. MERYON, after alluding to the services rendered by Dr. H. Weber, in his paper on the Crura Cerebri, and in his former contribution to the pathology of the Pons Varolii, expressed his opinion that, if every case of cerebral disease were as carefully examined as this had been, the numerous instances of discrepancy which we hear of, between the anatomical disposition of the nerve fibres in the encephalon, and the symptoms which present themselves in structural lesions of the brain, would soon become the rare exceptions. He illustrated his proposition by adducing—1. The case described by Dr. Weber, in which a correct diagnosis had been formed as to the seat of the disease in consequence of the third cerebral nerve being implicated in the hemiplegia; and, 2. The case reported by Dr. Waters, the symptoms in which clearly pointed to the medulla oblongata, and to that portion of it in the immediate neighbourhood of the nucleus of the facial nerve, as the locality of the lesion; and referred to the observation of Dr. Cazalis, of the Salpêtrière, who has described the imperfectly palsied eyelid as a diagnostic sign of facial paralysis dependent on intra-cranial disease, and the perfectly fixed lid in affections of the facial nerve only. Dr. Meryon vindicated the theory of the posterior columns of the spinal cord and the corpora restiformia being tracts of sensitive impressions to the sensorium, notwithstanding the solution of continuity of the nerve fibres of the restiform body in Dr. Waters' case; and showed how such impressions may be conveyed to the brain by the intimate connexion of a portion of each posterior root of the spinal nerves with the posterior vesicular columns, and substantia gelatinosa in the grey matter, and partly by those bundles of nerve fibres which pass out again from the grey substance into the lateral white columns.

Dr. WATERS said the case he had brought under the notice of the Society was remarkable from the peculiar nature of the lesion that was sustained. With perhaps one or two exceptions, he was not aware that any case of a parallel character had ever been placed on record. The results of the case, as regarded the symptoms, did not in the slightest degree invalidate the views of Sir Charles Bell as to the function of the posterior roots of the spinal nerves, but they were quite in opposition to the theory that the posterior columns of the spinal cord and the restiform bodies were the tracts along which sensitive impressions were conveyed to the sensorium. The partial division of the grey matter on the floor of the fourth ventricle—generally believed to be the continuation of the central grey matter of the cord—without any loss of sensation following on the side opposite to the lesion, seemed rather opposed to the view that decussation of the conductors of sensitive impressions takes place all along the spinal cord; for, although only a portion of the grey matter was divided on the right side, yet if the sensitive fibres decussate before reaching the medulla oblongata, the left side of the body ought to have had a diminished sensibility, whereas the opposite was the fact—sensibility was diminished on the right side. The existence of increased temperature on the side of the lesion was also an interesting phenomenon; this and the somewhat flushed condition of the face were symptoms somewhat similar to those which follow an injury to the sympathetic. The author alluded to a case reported by M. Begin, in Longet's "Anatomie et Physiologie du Système Nerveux," where one antero-lateral column of the cord was divided by a sharp instrument, the posterior columns and the central grey matter being uninjured. In that case there was loss of power of the affected side, but no loss of sensation. The case he had reported, coupled with that of M. Begin, and taken with the experimental and pathological cases which have been already brought forward, seemed to prove beyond doubt that neither the posterior columns of the cord nor the restiform bodies were concerned in transmitting sensitive impressions. In conclusion, the author dwelt on the importance of a careful observation of such rare cases as the one he had related, which constituted, in fact, a repetition in man of the experimental inquiries so often made by physiologists. Such cases, when correctly observed, might serve to establish important physiological doctrines, as not being open to the objections which might be advanced against the results of vivisections in the lower animals, or the facts observed in disease in man.

Dr. WEBER said that the author's case was like his, in that there was increase of temperature on the side of the body opposite the lesion. In his (Dr. Weber's) case this increase only lasted seven or eight days, which was about the time the temperature was increased after section of the sympathetic.

CONTRIBUTION TO THE THERAPEUTICS OF CONTINUED FEVER.

BY THOS. K. CHAMBERS, M.D.,
PHYSICIAN TO ST. MARY'S HOSPITAL.

Analysis of 214 *cases of continued fever:*—
108 treated on "general principles;"
106 treated on a uniform plan of continuous nutriment and hydrochloric acid.

The first series occurred during the six years ending September,

1857; the second series during the five and a half years ending March 31st, 1863.

Reasons for the cases being fairly comparable.—1. They are each a consecutive series. 2. They are spread over a considerable period of years. 3. All treated by the same physician, and under similar circumstances. 4. Diagnosed and recorded by independent registrars. 5. The equality of the cases is shown by the equality of the mean duration of their convalescence.

Of the first series—
of 13 entered as typhus, 3 died;
of 39 entered as typhoid, 16 died;
of 56 of doubtful type, 3 died.
Of 108, total of continued fever, 22 died.

Of the second series—
of 19 entered as typhus, none died;
of 48 entered as typhoid, 2 died;
of 39 of doubtful type, 2 died.
Of 106, total of continued fever, 4 died.

Excluding from the first series 2, and from the second 1, who died within two days of admission, and gave therefore little scope for judging of the effects of treatment, there remains somewhat less than 1 in 5 as the death-rate under the first treatment, and less than 1 in 35 as the death-rate under the second treatment. Therefore the second method of treatment is a powerful means of preserving life.

Details of treatment were given, and some remarks made on the action of emetics.

Dr. WEBER said that, fifteen years ago, when he was a student at Bonn, the usual treatment of fever was by hydrochloric acid alone, without food. Fifteen drops of the diluted acid were given four, five, or six times a day. The mortality was about sixteen or twenty per cent., the cases being typhoid. The fever was, on the whole, more violent than here. Dr. Weber thought it would have been better to have made a comparison between the treatment by hydrochloric acid and no treatment.

Dr. MURCHISON had listened with much interest to Dr. Chambers' communication, inasmuch as the treatment recommended closely resembled what he had followed at the Fever Hospital during the last eighteen months. The treatment of typhus and allied fevers by the mineral acids was a very old one; it had long been the favourite treatment in many parts of Europe, particularly in Germany and Sweden. At the same time, he had not that implicit faith in it which Dr. Chambers appeared to have, and he must protest against Dr. Chambers' inference, that his treatment was calculated to prevent fifteen out of every eighteen deaths from fever. Dr. Murchison had employed the mineral acids, in conjunction with abundance of fluid nutriment, and wine when indicated, in upwards of 1500 cases of fever, and although he had often seen the most marked improvement (cleaning of the tongue, &c.), follow the use of the acids, his statistical results had been much less favourable than those now announced to the Society. He was convinced that, with more extended experience, Dr. Chambers would be compelled to modify his opinion. Dr. Chambers' statistics were open to several fallacies. 1. The cases selected for comparing the results of different plans of treatment had occurred at different periods, instead of at the same time. 2. In both series the form of fever had not been determined in a large proportion of the cases, and no details had been given to enable anyone to judge of their severity. Many of the cases "of doubtful type" had probably been examples of simple fever, which was rarely fatal under any method of treatment. The results would be materially affected by the proportion of cases of simple fever or febricula in either series. 3. The rate of mortality in the first series, treated "on general principles," was far above the average mortality from fever in general hospitals, and hence it was not a fair standard of comparison. The total mortality in this series (including febricula) had been twenty per cent., for typhus alone twenty-three per cent., and for enteric fever no less than forty-one per cent. 4. The ages of the patients suffering from the different forms of fever had not been given. Age exercised little or no influence over the rate of mortality of enteric fever; but in the case of typhus, the results of different methods of treatment could never be satisfactorily compared without taking the ages of the patients into consideration. Under twenty years of age typhus was rarely fatal; above fifty, the mortality was nearly sixty per cent. 5. The number of cases was too small to warrant any decided opinion as to the advantages of the treatment recommended. The second series included only nineteen cases of typhus and forty-eight of enteric fever, diagnosed as such. A practitioner, with extensive experience in fever, might often have under his care twenty cases of typhus in succession, without losing a single case, but then if he lost five cases, the mortality would be twenty per cent. During last autumn, of forty-one successive cases of enteric fever, under Dr. Murchison's care, only two died, one from perforation of the bowel, and the other from acute tuberculosis—lesions not likely to have been cured by any treatment—yet the rate of mortality for the entire year had been considerably greater. Most of the forty-one cases had been severe, but in none had a drop of hydrochloric acid been administered. Dr. Murchison doubted if the hydrochloric acid possessed advantages over the other mineral acids. Although he believed that the treatment of continued fevers by the mineral acids, together with a uniform system of nourishment, was justified by our knowledge of the pathology of fever, as well as by experience, he was confident that Dr. Chambers' statements were calculated to make those who heard them too sanguine as to the results to be obtained from it.

Dr. CHAMBERS, in reply, said that all statistics were open to the objections raised by Dr. Murchison—that they were not long enough. His statistics were not brought forward as conclusive, but as a help to further inquiry; and he would grant that it might be found that the mortality was slightly different if further series of cases were compared, but not so as to affect the practical conclusion. His reason for bringing forward the two series of cases, the subjects of the paper, was, that being equal in number, and being pretty much under the same circumstances, they were fairly comparable. The difference in the mortality might be due, it was said, simply to a general difference in the mortality of the fever at the two quinquennial periods; but he had found that the mortality from fever in the two periods was as nearly as possible equal, taking Dr. Murchison's statistics as his authority. He did not bring forward the cases to exemplify the acid treatment, but rather as evidence of the value of continuous nutriment. In fact, he believed that the acid was beneficial principally in a subsidiary manner—in preparing the digestive mucous surface for the nutriment. That it did thus produce a beneficial change was evident from the clearing of the tongue. In reply to Dr. Waters, the author said that wine was given in both classes, but only in cases in which it was strongly required, on account of the expense. The treatment in Germany by acids was not successful from being relied on solely, and not supplemented by nutriment.

Reviews and Notices of Books.

A Handbook of Uterine Therapeutics. By EDWARD JOHN TILT, M.D., Consulting Physician to the Farringdon General Dispensary, &c. 12mo. pp. 309. London: Churchill and Sons.

FOR many years past Dr. Tilt has sought to determine the real value of those various modes of treating inflammatory affections of the womb which have been advocated by different eminent practitioners. In giving the result of his labours to the profession, the author has done a good work. The present volume contains a great deal of useful matter; and though there are some observations in it which do not accord with our own views, yet the greater portion of the treatise appears unexceptionable.

The book consists of twelve chapters and a formulary. The former are devoted to the consideration of uterine dietetics, antiphlogistic treatment, sedatives, caustics, tonics, hæmostatics, emmenagogues, specific treatment, uterine orthopædics, treatment of uterine complications, treatment of sterility, prevention of uterine inflammation, and the influence of India on the treatment of uterine inflammation. There is also an introductory section, in which Dr. Tilt gives advice to the young practitioner of obstetrics as to the best means of ensuring success in his calling. He seems to think that not only is sound medical information necessary, but there must be also a knowledge of women generally, so that their mental peculiarities and their motives of action may be understood. The young obstetrician ought to be married, "or what right has he to know anything about women?"—his conduct should be free from eccentricity, his behaviour to his patients quiet and expressive

of kind sympathy, and his face is to be cheerful. "An eminent consulting surgeon, now making a large fortune," has assured Dr. Tilt "that a solemn oracular manner and monosyllabic answers make most impression on his patients." With much better judgment, Dr. Tilt suggests that the best way to obtain the confidence of a sick woman is minutely to investigate the facts of her case, to explain the nature of the disease to her, to be hopeful as to the result, and to evince an anxiety and a determination to effect a cure. The art of interrogating female patients, so as to derive the greatest amount of information without in any way hurting their feelings or losing their confidence, is fully dwelt upon. Some remarks are made to show the line of conduct to be pursued when vaginal examinations are rendered necessary; and the opinion is given that the presence of a third party during such an investigation is best dispensed with, unless a contrary wish should be expressed.

In this way the author fills the first dozen pages of his book in a light agreeable manner; and then follows the solid material in the shape of the chapters whose headings we have already given. These chapters contain a great deal of information, that on uterine dietetics being particularly useful. In speaking of railway travelling, the author expresses his belief that it much increases the sufferings of women affected with inflammatory and other affections of the uterus. He says: "I have known a long railway journey bring on premature labour, miscarriage, flooding in cases of cancer or fibrous tumour, and to greatly aggravate internal metritis. I have just had an opportunity of studying attentively the action of railway progression during a long journey on a dark December night, the railway being narrow gauge, going at average speed. In badly hung carriages we went on pounding unevenly-laid rails by that succession of up, down, and lateral concussions which render railway travelling so much more trying than a carriage drive; the flattened, laminated state of the rails showing how they had been hammered by the carriages. When it is necessary to travel by rail, those who suffer from the more severe forms of uterine inflammation should avoid doing so during the menstrual flow or its proximity, and even during the time when it ought to come, whatever may be the reason of its non-appearance. If the line be easy, and on the broad gauge, the patient cannot do better than lie down as on a sofa; if the line be bad it is better to sit up on an air cushion, for every part of the carriage that is leaned against for support replies by a more or less severe jar and concussion."—p. 16.

Perhaps there are no agents so frequently used in the treatment of uterine diseases as vaginal injections. Yet it is certain, looking at the way in which these remedies are generally employed, that they can do very little good. To fill a small glass or pewter syringe with six or eight drachms of some medicated fluid, and to squirt the latter an inch or so up the vagina, may amuse the patient, but it will not remove disease. The only effectual instrument for making injections is the syphon syringe, and certainly not less than a pint of fluid should be used at each application. In many instances medicated pessaries are much more valuable agents than injections, since with the former the affected tissues can be kept bathed, as it were, with different drugs for many hours. The best mode of preparing these pessaries is explained in the fourth volume of the "Transactions of the Obstetrical Society of London." Another common remedy is the warm bath, though on this point Dr. Tilt finds that "English society is imbued with the most ridiculous prejudices." When this physician wishes to obtain the sedative effects of water, he orders a bath at about 93°, directing the patient to remain in for two, three, or four hours. It seems to be doubtful whether this advice is followed as frequently as it is given; for the Doctor evidently sympathizes with Pomme, who, in speaking of an hysterical patient, said, "It is so difficult to conquer prejudice, that I could scarcely persuade her to remain ten hours in the bath every day."

On the subject of venesection, leeches to the womb, and scarifications of the cervix we find much interesting matter. The same remark applies to the use of caustics, pessaries, &c., on all of which points Dr. Tilt gives his own views in a clear and concise manner. He by no means subscribes to the views entertained by many physicians as to the ill effects of the antiphlogistic treatment. "Bleeding has gone out of fashion," he remarks, "because the profession, vividly impressed with the recollection of the excesses to which at different times it has been carried, has learned to substitute for it calomel and antimony; but is it not probable that, by totally neglecting bleeding in inflammatory affections, calomel, antimony, and other remedies do not exert their influence so speedily as if their exhibition were prefaced by moderate bleeding?" (p. 28.) The best time for using the lancet in uterine affections, the cases most likely to be relieved by it, and the amount of blood to be drawn, are topics on which much is said.

In concluding this brief notice, we would strongly recommend our readers to peruse Dr. Tilt's volume for themselves, instead of trusting to any critical remarks. They will find its pages very interesting, and at the end of their task will feel grateful to the author for many very valuable suggestions as to the treatment of uterine disease. The different views advocated are illustrated by the notes of many curious cases, so that the reader will find no difficulty in fixing his attention to the end of the work.

Who to Consult. London: Aylott and Son.

THE merits of this publication may be best inferred from the following extract:—

"Times out of number has the author of this manual been the medium of pointing out the source from whence the greatest amount of skill or judgment might be reasonably expected. Indeed, so convinced is he that, in many cases of serious or dangerous illness, protracted or special disease, this is *the surest mode of obtaining the best advice*, that he has more than once thought of making it a *specialité*."—p. 3.

Without attempting to interpret the foregoing, we may observe that many "mediums" have been recently before the public whose charlatanries have left anything but pleasant reminiscences. We must caution our professional friends and readers against placing too much confidence in any "medium of pointing out the source of skill or judgment," especially when the medium proposes to act by means of a neatly-bound volume with a mauve cover, purchasable for a consideration. The work professes to supply a want (of its own creation), and to enable each reader at once to form a judgment as to whom it is desirable to consult in every possible form of disease, having first, in a few pages, educated the reader's mind to a capability of determining what his condition is, in order that he may be in a position to make his selection. This "Medicine made easy" we have no confidence in, and the book now offered in no degree changes our view. The absence of many celebrated names from this first edition is but a proof that the medium's efforts are not complete. A second issue will doubtless be more successful in this respect; that is, should respectable professional men respond to the invitation and supply deficiencies by communicating with the publishers.

This work is, we believe, calculated to do even greater injury to the members of the profession whose names it parades than to those whose names it omits; and we are satisfied that the invalid who expects to derive advantage from its perusal will be disappointed. We have sufficient confidence in the integrity of our brethren to feel convinced that selfish vanity has no participation in their anxiety to do justice to their patients; and *they* know well enough where suitable consultations may be had when required. The work is not, however, intended for them. If it be designed for the public, it assumes the existence of a class of individuals who have no medical practitioner to guide them. We do not believe that such a class exists; and even assuming that there does, we are satis-

fied that the closest study of this book, especially of the Pathology, Diagnosis, and Distinctions of Disease, would not enable the invalid to form any sound estimate of his requirement. Non-professional readers cannot, by the perusal of any volume, be expected to arrive at an accurate diagnosis of their morbid conditions; and unless they do so, this book would widely extend the evil it is intended to remedy. The "common civility" which induced its publication has, in this instance, less of comprehensive sagacity than usually appertains to the firm whose name it bears.

New Inventions

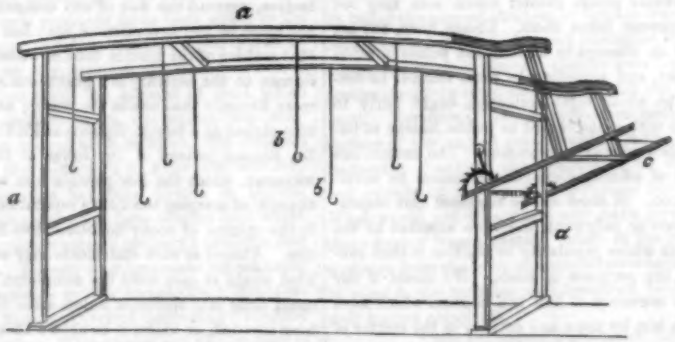
IN AID OF THE

PRACTICE OF MEDICINE AND SURGERY.

IMPROVED SUPPORTING FRAMEWORK FOR THE BEDS OF PATIENTS.

THE apparatus, of which the accompanying woodcut is a representation, is described by its inventor, the Rev. J. Hearn, as an application of framework (*a*), which is mounted over the bed of the patient, and furnished with a series of cords (*b*), which are conducted over suitable pulleys carried by the framing, the ends of which cords are pendant over, and distributed throughout the area occupied by, the patient. The free ends of the cords are conducted and fastened to a double-armed lever (*c*), mounted on the end standards, by which lever power can be applied to any number of the cords so as to lift any weight attached to the opposite ends. The pendant cords are disposed in pairs, one on each side of the head, one at each shoulder or across the back, one at either side of the loins or thighs, and one at either side near the feet—in all eight; but this number may be varied; one or more pairs of these suspending cords may be arranged separate and independent from the lever before mentioned, so as to be operated on separately, and so as to permit a greater or less lift for the head and shoulders or other parts of the body as may be necessary. Suitable means are provided for fixing the lever or hand-bar in position when the patient is raised, to which bar a single pair of cords may be attached. The pendant cords are provided with hooks or other means of easy attachment, to which bands or cradles by which parts of the body are supported may be applied. This system is also applicable for the support of the bed-clothes of a patient, or other articles that may be necessary to be supported independently of the bed. The upper horizontal framework is carried on standards, raising it sufficiently above the bed for all purposes that may be required. This apparatus might also be supported from a bedstead having an overhead framework; but the inventor prefers to make it complete in itself.

It has been for some time in use at St. Bartholomew's, Guy's, St. George's, and other hospitals, and has been found to answer its purpose very efficiently, being a great improvement over anything of the kind hitherto employed for the purposes to which it is adapted.



A FITTING SEQUEL.

To the Editor of THE LANCET.

SIR,—The thanks of all professional men, whose duties bring them into contact with the fair sex, are due to THE LANCET for the manner in which it has defended Mr. Adams against the infamous conspiracy of which he has been the victim.

Whilst the controversy between Mr. Adams and Mr. Propert existed, we abstained from addressing you; but, now that Mr. Propert has admitted himself to be in error, our motives for reticence no longer apply, and possibly a few facts concerning the Russells may not be uninteresting or "*uninstructive*" to your readers.

The pecuniary position of the Russells, having been fully shown at the trial, need not now be further alluded to. Had the witnesses from Holyhead been examined, we should have shown that, according to the statement of the Russells, Miss Russell was, at various times, engaged to be married to no less than four different clergymen there.

Prior to their acquaintance with Mr. Adams they resided in the neighbourhood of Bedford-row; there, also, they informed their landlady that Miss Russell was engaged to be married to another medical man. But the strangest part of the story is yet to come. Previously to the trial of the action Adams *ats.* Russell, the Russells resided in the neighbourhood of Peckham, and, until within a recent period, Miss Russell continued to reside there. Her landlord, a Mr. Wilkinson, a poor hard-working carpenter, called upon us a few days ago and stated that he had been induced to afford the Russells board and lodging prior to and since the trial, upon the strength of their statements to him that Miss Russell was about to be married to Mr. Pike, the gentleman who conducted the case against Mr. Adams, and who had broken off an engagement with another lady to secure her. Mr. Wilkinson also said that the mother and daughter had frequent quarrels, which the daughter informed him was on account of the mother's objection to the match. Ultimately Mr. Wilkinson saw Mr. Pike with reference to these statements, and, finding them to be false, turned Miss Russell out of doors; but the peculiar hardship of this case is, that the poor man has expended all his little savings in keeping her.

We have also received a visit from a member of Mrs. Russell's family, on behalf of the family, who appear to be people of high respectability; they sympathise deeply with Mr. Adams in the annoyance he has undergone, and the member in question informed us that Mrs. Russell had long ago been discarded by her family.

We may add, that Mr. Adams some time since consulted us as to the advisability of indicting Mrs. Russell for perjury at the trial, but being unwilling to incur the responsibility of advising him on this point, we had a conference with Mr. Lush, Q.C., who was of opinion that the technical difficulties in obtaining a conviction were too great to render that course advisable.

We are, Sir, yours obediently,

WILD and BARBER,

Ironmonger-lane, Cheapside, May, 1863. Solicitors for Mr. Adams.

THE LANCET.

LONDON: SATURDAY, MAY 16, 1863.

IN our last number we published a letter in reference to the assumption of professional names to designate quack remedies. We invite attention to a further consideration of the subject. There can be no doubt that the practice prevails to an extent which renders it most desirable that some distinct limit be placed to the imposition thereby accomplished. The question is how is that best to be done. The difficulties in the way of procuring an injunction to restrain the sale of goods not declared to be injurious to life or morals, is, in this mercantile country, of necessity very great. Before granting an injunction at the suit of an individual, the mind of the Court must be satisfied that some right, vested in the applicant, has been invaded; and this implies either direct or consequential injury, other than that which may be presumed to result from the mere coincidence of the name of the vendor being identical with that of the complainant.

We have the highest authority for saying that names are now a kind of movable public chattel which men may use very much as the humour takes them. Unless, then, the use of a name is in fact an attempt to mislead the public in reference to some matter, and according to some manner in connexion therewith, to which legal protection ought fairly to attach, it is difficult with a due regard to public liberty to impose on such a practice adequate restriction. The custom has long been followed of affixing distinguished names to novelties in dress or fashion. It must not be supposed that responsibility, either in taste or judgment, therefore attaches to the illustrious personages whose popularity or position is thus rendered available for the purposes of trade. We doubt if our juvenile Premier is conscious of half the honours which have been bestowed upon him by town and country in the matter of shirts, collars, and capes; or whether the Great Duke had any interest in the sale of the boots which so long have borne his name. The last remarkable illustration of this practice rests with our mythical friend "DUNDREARY," whose title lends importance to half of the fashionable contrivances of the last year. As in trade, so in medicine; we have had the names of illustrious personages appropriated for every possible purpose. COOPER, BRODIE, LOCOCK, have each been made use of in turn, as it suits the interest of the seller, who, no matter what be his compound, if he advertises freely and assumes a great appellation, is sure to accomplish a mercantile success. This is all that is thought of by those who so act. The public never dream of attaching any further importance to the name than as a title of distinction; and certainly no one ever imputes either personal knowledge or interest to him whose name may chance to have been so assumed or adopted.

In the case mentioned in the letter referred to, it is asserted that the remedy advertised as "Dr. RICORD'S Essence of Life" would not be permitted the same unqualified publication on the Continent. No doubt on the Continent M. RICORD would be enabled to satisfy the judge that a disreputable traffic was attempted on his reputation. Though they certainly do order many such things better in France, especially as regards the assumption of names, either by individuals or for commercial purposes, we yet question whether, if a parity of circumstances were shown to exist here, the restrictions of English law would not prove equally great. The difficulties which beset legal interference are obvious. To use a name with the intention of deceiving the public, involves misrepresentation in reference to that name. Thus, if it be affirmed that the essence in question is a remedy devised by M. RICORD, and M. RICORD repudiates all knowledge of the nostrum, it is quite open for him to institute a prosecution in our English Court of Law against the seller of such compound for receiving money under false pretences. Nay, more: we believe that he might also found a civil action for loss of professional reputation thereby sustained. Before, however, entering on so serious a step, legal proofs are requisite; and mere identity of name on the part of two alleged inventors is not sufficient to fix upon one the intention of personating another, unless there be a design at the time of adopting the name to deceive the public in reference to an invention published under that name. The answer to such an action in the present case would be the assertion that M. RICORD has no invention—that Dr. RICORD has. Though M. RICORD has a special reputation, Dr. RICORD claims a similar one. M. RICORD may, if he has legal protection, prevent the sale of any compound of his, or the use of the name of any invention of his; but Dr. RICORD will allege that nothing of the kind is done or attempted, and that any inference to the contrary is a gratuitous assumption. There are more RICORDS than one in the world; and if the foreman JONES who picked up a foreign diploma as Ph.D. chooses to call himself Dr. RICORD instead of Dr. JONES or Dr. PLANTAGENET FITZHERBERT, which the law permits him to do, he thereby takes the risk of merging the JONES reputation in his new name, and in the opinion of many doubtless does himself no small injustice. Absurd as such statements may seem, arguments of this kind would at once meet the complaint. No principle of law could come into operation unless some right of M. RICORD has been invaded, or unless it be shown that an attempt is in operation to take fraudulent advantage of the reputation acquired by some specific remedy of M. RICORD, in order to foist upon the public a different article as that remedy. Though the legal abolition of that which M. RICORD, no doubt justly, regards as a nuisance is a matter involved in difficulty, that gentleman may rest assured that he has no further cause for dissatisfaction with our country, as his reputation places him, in the minds of the well-informed public, immeasurably beyond the imputation or suspicion of being in any way identified with the compound offered for sale. Each day something or other is brought forward in which different persons consider their respectability involved, and write to say that they are not the parties in question. It is very disagreeable, no doubt, to have a name similar to one's own associated with all sorts of questionable practices. It is, however, one of those matters that fortunately proclaim their identity, and so carry their remedy with them. No one whose opinion is worth consideration would think of associating the name of M. RICORD with so palpable an imposition "as the restoration of shattered constitutions in four weeks," any more than they would confound WILLIAM GLADSTONE convicted of picking pockets with the distinguished individual whose name he bears. Unfortunately, there is no

means of preventing the public being perpetually imposed on, since neither exposure nor persuasion seems to have any other influence than to give a new direction to that subtle charlatanry with which this great metropolis abounds.

The real root of such impositions lies with the Government who sanction so-called "patent medicines," and thereby affix an official stamp to compounds generally worthless and often injurious. It matters not what the representation may be, the public are ever ready to accept it if the imposition be temptingly offered, even though, like the once famous British oil, it goes to the extent of "wonderfully helping to knit broken bones." On this subject legislation is imperatively required, since not only, as matters at present stand, are the public wantonly defrauded, but they are so under all the forms of law, and with the solemn imposture of official sanction.

NOT many days since a now well-established and highly-deserving body held its annual meeting under the presidency of the Earl of SHAFTESBURY, at the Hanover-square Rooms. The body to which we refer is known as the Ladies' Sanitary Association. Both women and men of philanthropy and note were present on the occasion to listen to the Report, which was delivered by Mrs. FISON in a manner offering an example well worthy of being followed by any male secretary. So far as the pecuniary condition of the Society goes, its state is most satisfactory. Twenty-eight new members have been added to the Association during the year, and its subscriptions and donations have been larger than on any previous occasion. We need scarcely add to this, that with the amount of good which the Society effects in proportion to its means the community have high reason indeed to be satisfied. Its influence is made to extend from the metropolis to Aberdeen, and very recently a Branch Association has been formed in Dublin. Neither wealth nor learning alone can form centres from which will radiate sanitary *practice*, whatever sanitary *knowledge* may illuminate such centres. Poverty and ignorance cannot make pretence either to the practice or the knowledge. Hence we find, on the one hand, Bath and Oxford possessing "sanitary branches," and, on the other, Whitechapel and the purlieus of Dundee. Since the darkness of Dublin has been pierced, we have no doubt that light will gradually spread elsewhere from the central sanitary Hibernian planet. Over all these numerous active limbs the parent Society in London exerts a vigilant and supporting influence. It prescribes their duties of visiting the wretched alleys and hovels of the poor with whitewash, pails, and scrubbing-brushes. It transmits them intelligible tracts on the laws of health to distribute to the stolid and ignorant. It inculcates the necessity of their investigating the "household troubles and trials" of the poor and needy, that homes may not be sacrificed to public-houses; that clothes may be redeemed from pawn, and the household, though humble, gods of the struggling housewife reinstated in their places. Nor does the Society hesitate to surround its sanitary offerings with some of those associations which are thought befitting accompaniments to more attractive pleasures. During the past year it has been able to open the rooms of Burlington House and the Lambeth Baths, and to invite the general public to such an exposition of its purposes and views as those able expounents, DRS. MILROY, WINSLOW, WALLER LEWIS, LANKESTER, and GREENHILL, could offer. Nor have many patrician names thought it beneath their honour to be numbered in the list. The Right Hon. W. F. COWPER, Lord RADSTOCK, the Hon. ARTHUR KINNAIRD, Sir HARRY VERNEY, Bart., the Earl of SHAFTESBURY, E. H. CRAWFORD, Esq., M.P., &c., have presided at these public sanitary demonstrations. Learning, as well as riches and station, has lent its aid, and during the meeting of the British Association at Cambridge, a "Sanitary Union" was held at Corpus Christi College, in the rooms of the Rev. W. EMERY, Mr. EDWIN CHADWICK presiding. Models for physical education have been presented to the Home and Colonial, and to the British and Foreign Training Schools. Two large classes have been formed in the St. John's Servants' Home, and an attempt has likewise been made to introduce sanitary knowledge and physical education into the Girl's Ragged School, St. Giles's, and into the School for the Blind, St. John's-wood. In the Home and Colonial Training School three separate classes have been formed, each class comprising between sixty and seventy pupils. As many of these young persons so taught are training to become the teachers of others, the instruction thus given them, through the exertions of the Sanitary Association, will necessarily hereafter bear fruit a hundred-fold, from their influence over a circle thus progressively widening. There is yet one mode in which this highly useful body exerts a beneficial effect upon the community which must not be forgotten. This is in the promotion of what it terms "park parties." Not less than 28,263 of the poorest children in London were sent to enjoy the benefits of a few days' play and relaxation in the various parks during the summer season. Guides were paid to conduct these parties, and toys were also provided for the little folks' amusement. Numbers of letters have been received from the committees of the ragged schools and from the schoolmasters and mistresses, thanking the Committee for this "great boon,' and expressing the extreme delight of the children therein. What would not CHARLES LAMB have given to have foreseen these days of "park parties," when, in the yearning passion for a release from the grim and monotonous darkness of Leadenhall to revel in the sunshine and meadows, he broke out into his well known complaint,

> "Who first invented work, and who bound down
> The holiday-rejoicing spirit?"

Would he not willingly have headed as spokesman of the deputation even that "very poor and ragged party, without shoes and with just a few rags on them," who "enjoyed games extremely, and sent a vote of thanks to the Committee"? The good effects produced upon the body, however, by these sallies into the fresh air from out the mephitic atmospheres of the Whitechapel and St. Giles's alleys are so potent as to become even bewildering and impossible to be endured, from their *very goodness*, by some owners of these little victims—for what else can we now call them?—to sanitarian practices. We are told, *e. g.*, that "one party was discontinued because the fresh air made the children so hungry that the parents could not afford so much food as they required on their return from the park. The parents said that 'they eat enough as it is.'" Poor little mortals! We wish sincerely you might have happened to be so fortunate as to be present when "on one occasion, a kind gentleman, seeing a party of fifty poor hungry-looking children at their games, gave them such a delicious tea that they have never ceased talking about it." But it was not to be; on the contrary, they were only to be made so hungry that their appe-

tites could not be satisfied. Is there not in all this a solemn appeal to such as have been seeking a good work to do, but have hitherto looked for a field of labour thousands of miles away from them? The negroes of Africa, the Tartars of China, and the inhabitants of the Fiji Islands are, no doubt, not to be neglected. But should they displace the little Arabs and the young pariahs of the very towns we live in? GOD forbid! We trust, then, that the appeal of this admirable Society, the Ladies' Sanitary Association, to the philanthropic mind of England,—to remember "how much the soul suffers from companionship with a poor, weak, sickly body, and how much may be gained even morally by an improved condition of the health and homes of our people,"—will not be permitted to be thrust aside by the more fashionable and clamorous demands of half-known and unexplored regions in distant quarters of the globe.

A REPORT has obtained currency, during the past fortnight, that small-pox had become very prevalent amongst the Guards at Windsor. Through the courtesy of the authorities we are enabled to lay before our readers an accurate account of the outbreak. It will be seen that popular rumour has largely magnified the events which had actually occurred.

The regiment of Royal Horse Guards Blue, to which Mr. J. C. AGNIS is attached as assistant-surgeon, moved from the Knightsbridge Barracks to Windsor on the 1st of April. Two days prior to leaving London, one of the men was attacked with small-pox, and a second fell ill of the disease on the day the regiment took up its quarters in Windsor. Since the last-named period ten men have also yielded to the infection, making a total, from the beginning of the outbreak to the present time, of twelve cases. In three instances the disease was confluent, and one of these cases, in which the affection was also complicated with purpura, terminated in death. The fatal case was very similar in character to one recently under Dr. GULL'S care in Guy's Hospital, and reported in THE LANCET of May 2nd. The whole of the patients were treated with the *Sarracenia purpurea*, and Dr. LOGIE and Mr. AGNIS think that, so far as can at present be judged, the influence of the remedy upon the disease was favourable. We trust that these gentlemen will, at an early period, favour the profession with a detailed account of the treatment and its results. With the exception of the one fatal case, all the patients have done well, and all but two are now convalescent.

There can be no doubt that small-pox was first contracted by the regiment in the metropolis. The disease has not, up to the present time, appeared among the Foot Guards at Windsor, who have been stationed there several months, except in the case of one of the men's wives, attacked a little while ago. Several instances of the affection have occurred among the civil population of Windsor and Eton, one or two of them ending fatally. It is doubtful whether the whole of the men attacked in the Horse Guards had been revaccinated. The majority of them had been long in the regiment, and probably were in the service before the existing order for the revaccination of soldiers came into force. The whole regiment (officers and men) is now being revaccinated; and a house-to-house visitation of all the married men's families living out of barracks, with revaccination, has also been carried out. No fresh case has occurred within the last eight days, and it is to be hoped that, thanks to the energetic measures adopted by Dr. LOGIE and Mr. AGNIS, this sudden cropping-out of small-pox has come to an end.

The outbreak teaches an important practical lesson which cannot well be too strongly urged—namely, the importance of an immediate and careful examination of the state of vaccination among the household and other troops, and of revaccination where it is requisite.

Medical Annotations.

"Ne quid nimis."

THE QUEEN'S VISIT TO THE ROYAL VICTORIA HOSPITAL.

THE first public act of the Queen after her bereavement has been a characteristic one. On the 8th of May she paid a long visit to the Military Hospital at Netley, the foundation stone of which she and the Prince Consort laid nearly seven years ago. The Prince Consort always took a great interest in this hospital, and frequently visited it. He was very anxious to have a Military Hospital worthy of the nation, and fitted for the brave soldiers whose health has failed in foreign service. Her Majesty participated in these wishes, and her visit so soon after the opening of the hospital shows how much she has at heart the carrying out the Prince's views for the welfare of the soldier.

On Friday morning, the 8th of May, the Commandant of Netley, Colonel Wilbraham, received notice from Osborne that the Queen would visit the hospital in the afternoon. Instructions were sent, however, to make the visit perfectly private, and consequently every step was taken to secure this. No orders were issued till two o'clock, and it was not till just before her arrival that the news of the Queen's visit spread through the hospital.

The Queen arrived at half-past three, accompanied by Prince Alfred, and Prince and Princess Louis, and attended by Lady Mount-Edgcumbe, Lord Charles Fitzroy, Sir Charles Phipps, Sir James Clark, Major Cowell, &c. She was received on landing by Colonel Wilbraham, C.B.; Inspector-General Dr. Anderson; Major Rawlings; Major Ravenhill, R.E.; the Professors of the Army Medical School; the Rev. Mr. Crozier; Staff-Surgeons Morehead, Nicholson, and Smith; and, in fact, all the hospital staff.

Her Majesty expressed a wish to visit first the foundation stone. She stayed here a few minutes, but it was evidently a painful reminiscence. She bore it, however, firmly, and then entered the hospital. It was intended to take her only into three or four of the wards to show her the arrangements; but she stated she desired to go into all the wards. On being told that there were no less than 99 wards, she said she would then visit as many as she could, and she did actually enter a very great number. In the first ward into which she went, a Victoria Cross man from India was lying very ill in bed. She immediately went up to him, addressed him most kindly, and sent for Dr. Maclean, the officer in charge of the division, to tell her about his state. She continued this in every ward into which she entered. Whenever she saw a man very ill, she walked up to his bed-side, spoke to him, inquired about him from Professor Longmore or Maclean, and showed the greatest interest in his case. In one ward an incident occurred which affected those who were present. An old soldier from India lay nearly at the point of death. After the Queen had spoken to him, he said, "I thank God that he has allowed me to live long enough to see your Majesty with my own eyes." The Queen and the Princess Alice were both touched by this speech, which came from the very heart of the dying man. The aspect of the whole hospital was indeed extremely touching. It is now almost filled with the Indian invalids, splendid old soldiers,

bearded and bronzed; many of them magnificent men of the ante-Crimean class. They thronged the corridors, drawn up in lines, and absolutely devoured their Queen with their eyes. She kept bowing to them as she walked along, making inquiries about the arrangements of the hospital from Colonel Wilbraham and Inspector-General Anderson. After looking at the chapel, bath-room, and kitchen, she expressed a wish to see the rooms of the Army Medical School, and accordingly visited the library, museum, lecture-room, laboratory, and microscopical-room. At each place the Professors were sent for to explain the arrangements. She then went into the quarters of the married soldiers. It had been rather wished that she should not see these, as, owing to the recent opening of the hospital, it has not been possible to arrange so comfortably as could be desired for the great number of soldiers' wives who have recently arrived with their sick husbands. However, the Queen said she desired to go, and accordingly she went into most of the rooms. Both she and the Princess Alice spoke to several of the women, and inquired after their comfort. This was the only part of the hospital which did not satisfy her; but it was explained to her that the present arrangements were only temporary.

The Queen then re-embarked, after spending nearly two hours in the hospital. The day was beautiful, the sky cloudless, and nothing could be more cheerful than the look of the hospital grounds. Everybody connected with the institution was, of course, most highly gratified, not merely with the honour of the visit, but with the way, at once so thoroughly Royal and womanly, in which she had shown her interest in her sick soldiers. The Queen's appearance was deeply interesting. When she is silent, her face is sad, and bears the marks of a heartfelt and abiding sorrow. Her smile is, however, as gracious as ever, and her voice, though low and very gentle, has all its old sweetness and clearness. She did not seem fatigued with her long walk through the hospital, though she must have gone over several miles of ground, and had many stairs to mount. So carefully had the news of her visit been concealed, that there was scarcely anyone to see her except the inmates of the hospital and the workmen still engaged there, and their wives and children.

SMALL-POX ECONOMICS.

AN ill-considered parsimony is too commonly the bane of parochial hygiene. To effect an immediate saving of a few pounds, Marylebone is about to be saddled with an ultimate expenditure probably quadruple or quintuple the sum sought to be economized. For the sake of a few pence, Croydon, like many other localities, is subjected to recurring epidemics of small-pox. Marylebone needs a temporary hospital for the reception of cases of the loathsome affection—the malady not only being rife, but largely extending amongst the teeming population of the huge parish. The need became apparent three weeks ago. The best, most readily constructed, and, in the end, cheapest temporary hospitals, as the experience of fever and cholera epidemics has clearly shown, are wooden huts. Ignoring this experience, the parish authorities institute a search for a vacant dwelling-house, or other building, which might be converted into an hospital. The search was a vain one, for, as was to be expected, landlords were obdurate. Upwards of a fortnight was wasted in the useless quest, and then the wisdom of the Vestry culminated in a proposition that several parishes should unite for the purpose of building an iron hospital somewhere in the suburbs. Pending the discussion of this proposition, small-pox is spreading more and more widely in the parish. Every day centres of infection are being multiplied; every day the necessity for hospital accommodation becomes greater. Of what capacity the suggested iron hospital is to be, so as to meet the wants of the different parishes, or in what fashion the beds are to be parcelled out, so that each parish may have its share, is not stated. It is certain, however, that the accommodation which would have satisfied the requirements of Marylebone three weeks ago will not meet them at the present time. For the error of judgment and false economy of the local authorities when the necessity for a temporary small-pox hospital became first known, the parishioners will now have to pay most dearly, not only in pocket, but also in the suffering, disfigurement, and perhaps even death, of many.

Small-pox is epidemic in Croydon as well as in London. In Croydon also, as in the metropolis, the outbreak is traced to the neglect of vaccination. But it is asserted that the neglect in the former place is due to the insufficient remuneration of the public vaccinators, and on the 9th instant the local Board of Health passed a resolution recommending the guardians of the poor to take the question into consideration. At present, the minimum fee allowed by law (1s. 6d.) is paid for each successful case of vaccination. It is suggested that the fee should be increased to 2s. 6d.

BETHLEHEM AND ST. THOMAS'S HOSPITALS.

FROM the result of a meeting of the Governors of Bethlehem Hospital held last week, there is no probability of their accepting the offer made to them by the authorities of St. Thomas's. A string of resolutions of great length were passed which effectually broke off the negotiation. Dr. Webster moved that the offer of £150,000 made by the Governors of St. Thomas's Hospital be accepted; this motion was, however, rejected by a considerable majority. Some of the arguments advanced for maintaining Bethlehem Hospital in its present position were curious. For instance, it was stated that looking in the plate-glass windows of the shops in Newington-causeway had a most beneficial effect on the patients during their perambulations. But even the advantages derived from this were exceeded by their feeding the ducks in St. James's Park. When such arguments as these are mainly relied upon by a majority of the Governors, it is useless to adduce facts to prove the advantages of removal. The recoveries in Bethlehem Hospital have decreased six per cent. during the last twenty years, even though restraint has been abandoned and a more humane and scientific mode of treatment has been adopted. What is the cause of this decrease?

The Governors of St. Thomas's will now have to fix upon another site for their new institution; and it seems probable, after all, that the Surrey Gardens will be retained—certainly, next to Bethlehem, by far the most eligible site that has been mentioned.

THE ROYAL SOCIETY AND THE PROFESSION.

OF the forty-five candidates desirous of becoming Fellows, fifteen only are recommended by the Council for election in June. Two only of these are members of the medical profession—Dr. Pavy, and Mr. Samuel James Augustus Salter, both belonging to Guy's Hospital. Twelve other medical gentlemen, some of great eminence, have been passed over. It is difficult to determine upon what grounds the Council are influenced in their selection. Not that there is anything to allege against the two chosen names; but there is a belief prevalent that the claims of Medicine, as a branch of Science, are slighted; and that rarely, if ever, is any physician elected by virtue of his medical acquirements. Amongst the most illustrious Fellows of the Society in times past were to be found many physicians and surgeons who entered as such, and not as naturalists or physiologists. Much, indeed, of the past reputation of the Society is due to their discoveries and labours. It will be a great misfortune to Science, so far as it is represented by the Royal Society, if Medicine for the future be treated with neglect. The Society is diminishing in numbers, if not in reputation. When, in 1837, the new statute for limiting the selected candidates to fifteen was passed, 828 gentlemen were entitled to add "F.R.S." to their names: on last St. Andrew's-day this number had diminished to 660. Thus in a quarter of

a century there has been a reduction in the number of no less than 168. If the process of decay is to continue, the Royal Society will become a small corporation indeed in the course of the present century.

AN EXTRAORDINARY GAZETTE.

THE medical intelligence from the Federal Army is often of a very startling character. The most unlimited expenditure of (paper) money and boundless supplies of stores are boasted by the Surgeon-General William Hammond, who writes recently to deprecate "State" interference in the care of the soldiers, alleging that he has the control, on behalf of the Federal Government, of "medical inspectors, medical directors, and over five thousand surgeons and assistant-surgeons, together with the support of commanding officers and all branches of the Federal Government, and over ten millions of dollars per annum." If disasters such as that of Vicksburg shock the States whose men perish by thousands in the mud, he begs them to consider the loss unavoidable, and asks help to defeat a Bill proposed to be enacted by the legislature of the State of New York for giving State aid in the care of the soldiers. The same sheet, however, which contains the letters also contains an extract from general orders, which affords a significant comment upon the matter.

"SPECIAL ORDERS, No. 143.

"War Department, Adjutant-General's Office.
"Washington, March 28th, 1863.

"By direction of the President, Surg. Wm. A. Gordon, 30th Illinois Volunteers, who was mustered out of service by order of the Commanding General Western Department, is hereby restored to his command; and Surg. D. N. Moore, same regiment, is mustered out of the service, as of this date.

"By direction of the President, the following officers are hereby dismissed the service of the United States:—

"Surgeon J. G. Buchanan, 32nd Ohio Volunteers, for using insubordinate language, with loss of all pay and allowances now due or that may become due him.

"Assistant-Surgeon Silas E. Sheldon, 32nd Ohio Volunteers, for using insubordinate language and breach of arrest, with loss of all pay and allowances now due or that may become due him.

"Assistant-Surgeon D. H. Prank, 20th Indiana Volunteers, to date Nov. 16th, 1862, for receiving money from enlisted men for making out their certificates of disability for discharge from service, and for conduct unbecoming an officer in blindfolding said enlisted men whilst examining them.

"Assistant-Surgeon Albert W. Kraft, 1st Virginia Volunteers, having been reported by his commanding officer for utter ignorance of the duties of a medical officer, and having declined an examination by a competent medical board, has been mustered out of service from Nov. 18th, 1862, the date of muster in.

"By direction of the President, Surgeon W. D. Stewart, U.S.V., has been dismissed the service of the United States, with loss of all pay and allowances now due or that may become due him, for absence without leave and neglect of duty.

"The following officers are hereby discharged the service of the United States on account of incompetency:—

"Surgeon F. T. Hurxthal, 19th Ohio Volunteers.
"Surgeon J. B. Armstrong, 31st Indiana Volunteers."

Such a gazette as this is, we believe, without the most distant parallel in any European army, and a department in which such an order can be necessary, or can be published, must be in a hopelessly inefficient condition.

CASES OF EMERGENCY.

SOME attention may be given to an account of an inquest held by Dr. Lankester last week on the body of Catherine Nagan, aged forty-five. The deceased had been in good health up to about three months ago, when she was attacked with inflammation of the lungs, and was attended for it by Mr. Clapp, surgeon, Great Titchfield-street. On Tuesday morning, between five and six o'clock, a lodger went into her room, and found her on her knees by the bedside. Blood was flowing from her mouth. She ran for a doctor, but could not find anyone who would attend. On her return life was extinct. The Coroner observed that he frequently found that in cases of emergency medical gentlemen objected to attend, and that he thought the police surgeon of a district and the resident surgeon of a workhouse might be engaged, with an additional salary, to attend cases where there was not time to apply for an order. The verdict was "Natural death."

The point discussed by the Coroner is worthy of careful consideration; it has been frequently raised, and sometimes very unpleasantly. From time to time cases presenting similar difficulty will occur, and it would be well to have a definite understanding. It is the inherent quality of the medical vocation, which is at once a mission and a mode of livelihood, that the two aspects cannot be always reconciled. Were medical practitioners subsidized by the State or by communities in the same manner as the clergy, the call of suffering must be the stronger when it is intensified by poverty. But for the medical practitioner who has to find in such case the means of so remunerating his expenditure of time as to aid in furnishing a living to himself and his family, the answer to a call must often be guided by considerations of prudence as well as of humanity. The suggestion of Dr. Lankester is practical, and we hope practicable.

Correspondence.

"Audi alteram partem."

THE EXAMINERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

To the Editor of THE LANCET.

SIR,—The excellent letter from Mr. Christopher Heath, which appeared in your valuable columns last week respecting the manner in which candidates for the diploma of the College of Surgeons, England, are treated, has induced me to trouble you with another communication upon the same subject, which is a most important one to the younger members of the profession.

Mr. Heath, although an entire stranger to me personally, is well known and respected. A protest, therefore, emanating from such a source, is to be believed, and surely ought to produce a salutary effect. There are hundreds of deserving, hard working, and conscientious but timid students and medical men, whose success at the College has been imperilled, and too often annihilated, by the apparently inimical, intimidating, and insolent bearing manifested towards them by certain examiners of this Board, who would long since have entered their indignant public protest against such treatment were it not that such complaints, coming from them, are so liable to be received with mistrust, as being the outcry of those who have merited both abuse and rejection at the hands of the College authorities. Unfortunate candidates are also deterred from making such complaints against any indignity to which they may have been subjected, knowing well that, if detected in so heinous a crime as that of exposing injustice and oppression, the gates of justice, to say nothing of the bowels of compassion, would thenceforth be closed against them in any subsequent appearance at Lincoln's-inn. A long career of success, not altogether deserved, I feel sure, seems to have blinded some of these College magnates to all sense of courtesy, consideration, and gentlemanly behaviour, and to have lulled them into a happy state of forgetfulness that there are other examining boards, now rapidly and surely rising in public estimation, who ensure to all a fair, honourable, and impartial examination, conducted in a gentlemanly and considerate manner, and who confer upon successful candidates a really more useful and comprehensive diploma than that of this would-be monopolizing Corporation. A unanimity of action among the junior members of the profession would soon alter this state of things; the diminished condition of the coffers of the College being as likely as anything else to bring the members of the Council, who tolerate and permit such treatment, to a sense of what is

due to every gentleman who presents himself for examination. It is only fair to add, that there are some of the examiners whose conduct in some degree atones for that of their colleagues, and many a successful candidate has reason to congratulate himself upon having fallen into the hands of those who know how to temper mercy with justice.

The examiners at the College have no right to abuse the position in which they have been placed. Those who do so knowingly, wilfully, and persistently, are unworthy of the great trust which has been confided to them. A petition to the Council, signed by the students of the metropolitan and provincial schools, respectfully urging upon them the removal of those examiners who so far forget themselves as to descend to mean quibbles and passionate invectives, would, I think, scarcely fail to attain the necessary object.

I am, Sir, your obedient servant,

May, 1863. A CONSTANT READER.

To the Editor of THE LANCET.

SIR,—I am sure the younger members of the profession will have read the letter of Mr. Christopher Heath, published in your last week's impression, with no ordinary amount of satisfaction, exposing as it does the annoyances to which intending candidates for the membership are continually liable by the conduct of the Court of Examiners. I believe I am only giving expression to the sentiments of the majority of junior professionals when I say that the examiners of the Royal College of Surgeons conduct themselves uncourteously to the candidates at their examinations. To myself, one of their number was abusive, which is my apology for this letter. In May of last year I had occasion, with many others from Edinburgh, to present myself for the final examination, and I shall long retain a very lively remembrance of what took place between the examiner and myself.

For example: I was asked, "How would you treat fracture of the leg?" "Reduction, and perfect rest," was my speedy reply. This answer called forth from my tormentor the following: "What the devil do you mean! Do you suppose that the patient is likely to play at foot-ball while his leg is broken?" Being young and slightly nervous, and never having been trained to use vulgar and vicious expressions, it was not surprising that I should betray some excitement. This, however, passed quietly off, when I had recovered the feeling of shame and endless disgrace that would attach to me in the event of being rejected. But I was afterwards taxed with another question—"How would you treat a case of carbuncle?" "Stimulate and nourish from the beginning, and make crucial incisions," was my answer. "I am sure no right-minded and feeling man will marvel that I should feel alarmed when I was talked to in the following manner: "We don't want any of your d——d book-learning here! You haven't attended the hospital."

This needs no comment, but I trust you will give the facts publicity in your impartial journal. In doing so, you will, I am sure, confer a great favour on many who are still consuming with anger at the unfeeling treatment they have received; besides helping to instil a little healthy feeling into the hearts of the gentlemen of Lincoln's-inn-fields, and teaching them that though they are great guns, and though they may "kill a pig every day," as the saying goes, the feelings of young men, who will occupy similar positions in the course of things, are dangerous toys, and not to be handled lightly.

I am, Sir, yours &c.,

May, 1863. M.R.C.S.

To the Editor of THE LANCET.

SIR,—I observe in your impression of Saturday last a letter from Mr. Christopher Heath, with reference to the examinations of the Royal College of Surgeons. Will you kindly spare me space for a few lines on the subject? I was one of the students who passed the anatomical and physiological examination at the College on the 30th ult. Not having the honour of a personal acquaintance with Mr. Cæsar Hawkins, I cannot be positive as to his identity; but I was told by other students, and believe, that he was one of the gentlemen who examined me, and I must say that my experience of his demeanour in no wise corresponds with that of Mr. Heath's pupils. His behaviour to me was both courteous and kind; and I may, *en passant*, make the same observation with regard to that of the other examiners whom I had the pleasure of seeing. I did not perceive any captious or unpleasant manner displayed by him or any one else whilst I was in the theatre; and I cannot but think that if a student present himself for examination properly prepared, he need not fear the questioning either of Mr. Cæsar Hawkins or of any other man.

I am, Sir, your obedient servant,

Birmingham, May, 1863. A THIRD-YEAR'S STUDENT.

To the Editor of THE LANCET.

SIR,—After reading Mr. Heath's letter in THE LANCET of last week, I felt myself bound to deny the correctness of his assertion, that *all* students have come to the same conclusion as himself regarding Mr. Hawkins' manner of treating them during their examination. Having passed the first professional examination last summer, I have much pleasure in bearing the highest testimony to the most gentlemanly behaviour of Mr. Hawkins, as well as the rest of the examiners, to me; and I am sure that no one who has paid the necessary attention to his subjects need be alarmed when presenting himself there.

I am, Sir, your obedient servant,

Glasgow, May, 1863. J. T. J.

*** Mr. Heath's manly expression of opinion has brought a flood of correspondence. We shall willingly ventilate any fair statements on the one side or the other; but it is desirable that correspondents should confine themselves, as far as possible, to statements of fact. No notice can be taken of unauthenticated communications.—ED. L.

ALLEGED LIBEL UPON A MANCHESTER PHYSICIAN.

The following correspondence is extracted from the *Manchester Examiner and Times*:—

To the Editor of the Examiner and Times.

SIR,—In reference to the report of the "Alleged Libel upon a Manchester Physician," in yours of to-day, I beg to observe that the action was not, as there stated, against THE LANCET, but against Dr. Roberts, of this city. It is not easy, from your report, for the public to understand the case, which is simply this:—Dr. Roberts, in a series of letters, some anonymous, published in THE LANCET, charged me with meeting homœopaths in consultation, and stated that such conduct was considered by the medical profession as improper and disgraceful, and he offered to find three cases in proof.

Subsequently, however, Dr. Roberts withdrew the cases, not being able to substantiate them, and in one of his pleas he alleged "that it was not disgraceful or improper to meet a homœopath in consultation," being directly contrary to the position first taken by him, and a contradiction yet to be reconciled. The court held on the argument, that even if such had been admitted to be true, *it was not improper or disgraceful to meet homœopaths*, and that, *so far*, the plea demurred to was good. But as to the letters in question, it was stated that if the object of the defendant was maliciously to place me in an invidious position, and to injure me in my profession, the publication of them might be actionable, *which is substantially the question yet to be tried.*

Yours respectfully,

101, Piccadilly, 8th May, 1863. CHAS. CLAY, M.D.

To the Editor of the Examiner and Times.

SIR,—It is with much regret that I feel compelled to trouble you in consequence of a letter of Dr. Clay, inserted in your issue of Saturday last.

It is *not* the fact that I stated in my letters to THE LANCET that Dr. Clay's meeting homœopaths was "improper and disgraceful," or that I "withdrew the cases" mentioned by me, "not being able to substantiate them."

It was *Dr. Clay*, in his declaration, that used the words that it was "improper and *disgraceful*" for him and other medical practitioners to meet homœopaths; and in my second plea I alleged that his statement was not correct. My instructions to my counsel were that, although contrary to the usual etiquette, it was not "disgraceful" to do so; as a minority of the profession disagree to this rule, and no physician or surgeon would refuse to meet them if such refusal proved detrimental to a patient in danger.

To this plea Dr. Clay demurred, on the ground that I could not deny (what in fact I had *not* stated) that it was "disgraceful" to meet homœopaths, and it was on this demurrer that the judgment of the Court of Exchequer was given in my favour.

Mr. Baron Bramwell stated, in the course of the argument, that the declaration of the plaintiff *was* libellous on the profession, but *not my letters;* and the whole court gave judgment that my plea was GOOD and his *declaration bad*, thus deciding that my letters were not libellous, and, consequently, that no action was sustainable upon them.

Dr. Clay, from his letter, evidently leads you to believe that there is a question yet to be tried in the action. Now, he well knows, or ought to know, that the decision of the court *goes to the whole cause of action*, and that if he should, from any motive whatever, go to trial, he will have to pay for his experiment, as the court, after its decision, *must* set aside any verdict which might by possibility be given in his favour.

The cases mentioned by me, in which Dr. Clay had met homœopaths, so far from being *withdrawn*, were, under a judge's order obtained by *him*, actually *supported* by me; and the particulars of the cases were given by me to the court under my plea of justification.

In conclusion, I have to state that I was at first advised by my solicitors that my letters were *not* libellous, and that, consequently, I had a good defence to any action which the plaintiff might bring; and upon that advice I acted, and the result has proved its soundness.

If I had done anything wrong in the course I pursued, I should have been ready to make an ample and suitable apology; but I have only been discharging the duty which I owe to myself and to the other members of my profession by the line of conduct I have pursued.

I am, Sir, your obedient servant,

Chatham-street, May 11th, 1863. WM. ROBERTS, M.D.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 7th inst.:—

Alderson, Frederick Henry, Ipswich.
Clarke, William, Longsight, near Manchester.
Cooper, Horace, Caversham.
Edlin, Ebenezer William, Manchester.
Fox Cornelius Benjamin, Truro, Cornwall.
Fuller, James Mortimer, St. John's-wood.
Gibbs, Edward, Birmingham.
Grubb, Richard Theodore, Cahir, Ireland.
Harvey, John Stevenson, Boulogne-sur-Mer.
Haward, John Warrington, Leicester-square.
Johnson, Richard Hison Daly, Liverpool.
Meadows, George Frederick Walford, Otley, Ipswich.
Noah, George Branston Valentine, Liverpool.
Pope, Edmund, Puddleton, Dorsetshire.
Richards, Joseph Peeke, Oxford-terrace, Islington.
Seabrook, William Milward, Brighton.
Stowell, Thomas, Brighton.
Terry, Septimus, Northampton.
Tibbits, Robert William, Ashton, near Bristol.
Wearne, Vivian, Helstone, Cornwall.
Webber, Hutton Joseph, Tunbridge Wells.
Welby, John Burdett, Leicester.
Wey, William John, Plymouth.

The following gentlemen were admitted Members on the 9th inst.:—

Bateman, Wm. Adolphus Fred., Richmond, Surrey.
Brockwell, John, Cleator, Cumberland.
Compson, John Charles, Stourbridge, Worcester.
Francis, Alfred Ollivant, Derby.
Hinds, Charles, Barbadoes.
Holyoake, Thomas, Kinver, Staffordshire.
Hunt, Henry John, Melksham, Wilts.
Hurlstone, Martin de Galway, Chester-st., Hyde-park-corner.
Jones, William, Llangorse, Brecon.
M'Bride, James, Rathfriland, Co. Down, Ireland.
Miles, Thomas, Totness, Devon.
Peatfield, Thomas John, Edwinstone, Notts.
Pyle, Charles John, Amesbury.
Pyle, George Edward, Amesbury.
Soffe, William Edward, Bungay, Suffolk.
Steward, Joseph Septimus, Ucemere Hill, Cumberland.
Summerhayes, Henry, Crewkerne, Somerset.
Swabey, Samuel, Prince Edward Island.
Turner, James Smith, Margaret-street, Cavendish-square.
Valiance, Edmund, Brighton.
Whipple, Jonn Henry C., Plymouth, Devon.
Wintle, Richard Prior, Earl's-court-terrace, Kensington.
Wood, Francis Henry, New Romney.

ANATOMY AND PHYSIOLOGY.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 28th ult., and when eligible will be admitted to the pass examination:—

Allen, B. H., University College.
Baker, G. B., St. Mary's Hospital.
Briggs, E. A., Edinburgh.
Collingwood, J. E., St. George's Hosp.
Cooper, G. H. C., University College.
Coulling, Henry, Guy's Hospital.
Dwyer, J. C., Guy's Hospital.
Finden, Woodforde, King's College.
Follett, James, St. Barthol. Hospital.
Harding, T. H. G., University College.
Holmes, Frank, Manchester.
Jackson, H. G., Leeds.
Jewison, T. W., Leeds.
Joynson, G. T., Manchester.
Knapp, W. P., St. Barthol. Hospital.
Langhorn, Joseph, St. George's Hosp.
Madeley, G. H., King's College.
Martin, J. H., University College.
Melklejohn, R. M., Edinburgh.
Morgan, L. W., St. Thomas's Hospital.
Nevitt, J. G., Leeds.
Nivison, T. R. S., Edinburgh.
Pearson, Henry, Manchester.
Percival, Thomas, Leeds.
Rigg, Thomas, Edinburgh.
Royds, W. A. S., St. Barthol. Hosp.
Shuldham, E. B., University College.
Smith, E. R., St. Barthol. Hospital.
Snewin, A. G., Charing-cross Hosp.
Spurgin, H. R., Guy's Hospital.
Stuckey, John, University College.
Taylor, G. C., St. Barthol. Hospital.
Watson, J. J., University College.
Webster, T. J., Manchester.
Whipp, Robert, Manchester.

The following gentlemen passed on the 29th ult.:—

Adams, A. B., London Hospital.
Barnes, Henry, Edinburgh.
Beckett, F. M., St. Barthol. Hospital.
Bell, Anthony, Newcastle.
Bell, William, King's College.
Bradley, Charles, University College.
Bulkas, William, Birmingham.
Burton, T. B., St. Mary's Hospital.
Craigie, John, London Hospital.
Creighton, Thomas, Newcastle.
Davies, Herbert, University College.
Dawson, Henry, Guy's Hospital.
Dunn, W. D., Birmingham.
Elmes, Thomas, Dublin.
Evans, J. A. M., University College.
Fairles, N. W., St. Barthol. Hospital.
Forster, E. W., Newcastle.
Fyson, E. L., Guy's Hospital.
Gray, J. H., London Hospital.
Harding, Peter, University College.
Hodges, F. H., Bristol.
Jackson, A. C., Guy's Hospital.
Leach, S. F., Guy's Hospital.
Liddard, William, Middlesex Hospital.
Longbotham, George, Newcastle.
Mann, W. S., Birmingham.
Morison, John, University College.
Nason, T. R., Guy's Hospital.
Nimmo, Thomas, Edinburgh.
Paull, C. G., Glasgow.
Philps, T. G., St. Mary's Hospital.
Reeves, H. A., Middlesex Hospital.
Rendle, George, Guy's Hospital.
Ruffo, Frederick, Birmingham.
Shedd, Ebenezer, London Hospital.
Shuttleworth, G. E., King's College.
Smith, H. R., Guy's Hospital.
Spilsbury, T. H., King's College.
Taynton, William, London Hospital.
Tidy, C. M., London Hospital.
Tremery, C. J., Guy's Hospital.
Tuckwell, D. G., King's College.
Walford, William, Edinburgh.
Weller, George, London Hospital.
Wheldon, A. H., Guy's Hospital.
Whitworth, Jas., University College.
Williams, E. O., Edinburgh.
Wolston, W. T. P., King's College.
Wykes, Edwin, Birmingham.
Wyllie, John, Edinburgh.

The following gentlemen passed on the 12th inst.:—

Barrett, H. W., Guy's Hospital.
Battersby, C. H., Dublin.
Battersby, H. W., Dublin.
Bennett, C. J., Edinburgh.
Branson, H. J., St. George's Hospital.
Brewster, Edwd., Charing-cross Hosp.
Eastes, George, Guy's Hospital.
Eatock, J. A., Manchester.
Evans, A. P., Birmingham.
Grindrod, J. A., Manchester.
Haslewood, A. O., Newcastle.
Heaven, Chas., St. George's Hospital.
Hilliard, H. C., Guy's Hospital.
Lightbody, W. H., Edinburgh.
Morris, J. L., Glasgow.
Moseley, A. J., St. George's Hospital.
Sutcliffe, W. H., Manchester.
Sutton, Thomas, Manchester.
Watson, J. B., University College.
Wilkins, J. C., University College.
Williams, John, Glasgow.
Wood, W. T. H., Guy's Hospital.
Wright, David, Edinburgh.

The following gentlemen passed on the 13th inst.:—

Bush, H. John Ryder, Middlesex Hosp.
Chandler, Henry Parry, Middlesex Hospital
De Souche, Isaiah, Dublin.
Diver, Ebenezer, University College.
Hughes, William Lewis, Dublin.
Jones, David, Dublin.
Moreton, Charles Peyton, Dublin.
Oxley, Charles Frederick, Edinburgh.
Phillips, Thomas Richard, Dublin.
Pratt, Thomas Gray, Edinburgh.
Wood, Robert, London Hospital.

THE FELLOWSHIP.—At a meeting of the Council on the 4th inst., Mr. JOHN BURTON ST. CROIX CROSS, of the 11th Hussars, was admitted a Fellow, having been elected at a previous meeting; diploma of Membership dated Aug. 11th, 1837. Mr. WILLIAM TRAVERS, of the Charing-cross Hospital, has just passed the Preliminary Examination for the Fellowship, having been admitted a Member on the 17th of April, 1860.

At the meeting of the Court on the 6th inst., Dr. ARTHUR JOSEPH IRELAND passed his examination for Naval Surgeon. This gentleman had previously been admitted a Member of the Edinburgh College of Surgeons, his diploma bearing date June 4th, 1856.

[In the list published on the 9th inst. of gentlemen who passed their examinations for Membership of the College, *for* "Walter Henry Cape" *read* "Walter Henry Cope."]

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 7th inst.:—

Brewer, Thomas, Halifax.
Gargery, Caleb, Birmingham.
Ferris, John Spencer, Bradford-on-Avon, Wilts.
Pilkington, Thomas, Enfield, Accrington, Lancashire.
Sharp, George Wyatt, Great Cumberland-street.
Thompson, William Allis, Oxford.
Woodman, Samuel, Finchley-road, St. John's-wood.

THE statement which appeared in the daily papers to the effect that Dr. Jenner is to attend the Queen to Balmoral this spring, is incorrect.

TESTIMONIAL.—Dr. Nicol, who has for a long time filled the office of Secretary to the Royal Institution of South Wales, is about to receive a testimonial in recognition of his services.

DEATH FROM NARCOTISM.—A patient in the Middlesex Hospital, aged fifty-nine, died last week of narcotism from morphine applied under the skin for delirium tremens.

TRAINED NURSES.—The Committee of the North London or University College Hospital have entrusted the nursing of that institution to the sisters of the All Saints' Home, under the direction of their lady superintendent.

UNIVERSITY COLLEGE HOSPITAL.—Her Majesty the Queen has made a donation of one hundred guineas to the above institution. The annual dinner will take place on the 2nd proximo, on which occasion the venerable Lord Brougham will preside.

SMALL-POX IN THE SOUTH LONDON DISTRICT.—In consequence of the increase of small-pox in the South London district, additional vaccinators have been appointed, and measures are being taken for the establishment of temporary hospitals.

HEALTH OF ROTHERHAM.—Dr. Shearman, of Rotherham, states that the death-rate of that place and neighbourhood for four months, ending April 30th, amounted to nearly 30 per 1000. This, with an approaching hot summer, is something fearful to contemplate.

OXFORD UNIVERSITY.—In a congregation, held on Wednesday, May 13th, a statute was passed, assigning a stipend of £150 per year to the demonstrator of anatomy, until such time as the Linacre Professor shall receive his full stipend. An examination for the degree of Bachelor of Medicine will take place on June 8th.

THE COLLEGE LECTURES.—Professor Gulliver, F.R.S., will resume his lectures at the Royal College of Surgeons on the 2nd proximo, when he will deliver six lectures on the Blood, Chyle, and Lymph, in continuation of his former course, and will be succeeded by Professor Solly, F.R.S., who will deliver six lectures on the Brain and some of its Diseases, commencing on Tuesday, the 16th June.

THE ROYAL SOCIETY.—From among forty-five candidates the Council has recommended for election the following, one in three:—Edward William Cooke, Esq., A.R.A.; William Crookes, Esq.; James Fergusson, Esq.; Frederick Field, Esq.; Rev. Robert Harley; John Russell Hind, Esq.; Charles Watkins Merrifield, Esq.; Professor Daniel Oliver; Frederick William Pavy, M.D.; William Pengelly, Esq.; Henry Enfield Roscoe, B.A.; Rev. George Salmon, D.D.; Samuel James Augustus Salter, M.B.; Rev. Arthur Penrhyn Stanley, D.D.; Col. Frederick M. Eardley Wilmot, R.A.

WESTERN MEDICAL AND SURGICAL SOCIETY.—The seventeenth annual meeting of this Society was held at their rooms, in Sloane-street, on the 1st inst., at eight o'clock P.M., Dr. Barclay, the President, being in the chair. The meeting was well attended by members and visitors. The reports of the Council and the Auditors having been read, the following officers were elected for the ensuing year:—President: Dr. Barclay. Vice-Presidents: Mr. Cumberbatch, Dr. Baines, Mr. J. Lane, Mr. Prescott Hewett. Treasurer: Dr. Baines. Honorary Secretaries: Mr. W. Milner, Mr. C. Hunter. Honorary Librarian: Mr. Thomas Dickinson. Members of Council: Dr. Cahill, Dr. Anstie, Mr. Bannister, Dr. Godwin, Mr. Pollock, Mr. Keen, Dr. Fuller, Mr. Rouse, Dr. Martyn, Mr. Vasey, and Dr. Way. Auditors: Dr. Marcet and Mr. Whitmore. The rest of the evening was devoted to the detail of cases and exhibition of specimens.

ST. BARTHOLOMEW'S HOSPITAL.—COLLEGE EXAMINATIONS, WINTER SESSION, 1862-63.—Senior Scholarship in Medicine, Surgery, and Materia Medica: 1, not awarded; 2, S. Hall and H. Mackintosh, equal.—Senior Scholarship in Anatomy, Physiology, and Chemistry: 1, F. W. Richards; 2, L. Powell.—Hichens Prize: H. Mackintosh.—Practical Anatomy, senior (Foster Prize): 1, J. T. Evans; 2, G. A. Coates; 3, A. H. Brewer; 4, C. D. Pearless; 5, J. W. Snook; 6, A. S. May; G. Bennett, F. G. Cropp, equal; 9, J. Raven.—Practical Anatomy, junior (Treasurer's Prize): 1, T. Cuddeford; 2, T. Cole; F. Bateman, A. C. Farringdon, equal; 5, G. F. Webb; 6, W. Iliffe; 7, R. Broughton.

UNIVERSITY COLLEGE, LONDON.—The distribution of prizes to the students of the Faculty of Medicine in University College, London, took place on Tuesday, Dr. Parkes, F.R.S., Fellow of the College, former Professor of Clinical Medicine, in the chair. The Atkinson Morley Surgical Scholarship, £45 per annum for three years from June, 1862, was awarded to William John Smith, of Basingstoke; the Longridge Prize o £40, for general proficiency in medicine and surgery, to William Henry Griffin, of Banbury; and the Filliter Exhibition, in Pathological Anatomy, £30, to Thomas Griffiths, of Carmarthenshire. Gold medals were awarded for acquirements in Clinical Medicine (Dr. Fellowes, winter term, 1861-62), to J. Talfourd Jones, of Brecon, South Wales, and Frederick Thomas Roberts, of Carmarthen; in Anatomy and Physiology (Professor Sharpey, M.D., F.R.S., Dean), to Bryan H. Allen, of London; in Anatomy (Professor Ellis), Senior Class, to Charles Bradley, of Nottingham; in Chemistry (Professor Williamson, F.R.S.), to J. Pearson Hughes, Llandovery; in Comparative Anatomy (Professor Grant, M.D., F.R.S.), to John Comyns Leach, of Crediton, Devon; in Medicine (Professor Jenner, M.D.), to Palemon Best, of St. Ives, Cornwall; in Surgery (Professor Erichsen), to Herbert Everitt, of Norwich.

VIVISECTION.—The deputation of the Society for the Prevention of Cruelty to Animals, which some time since waited on the Emperor Napoleon to protest against the practice of vivisection, have been rewarded by an ordinance of police, which places a check on this practice. The veterinary and anatomical schools are therefore expected to relinquish it entirely.

AN OVERDOSE OF CHLOROFORM.—On Monday last an inquest was held at Dalston, near Carlisle, on the body of Dr. Evans, whose death was occasioned by an overdose of chloroform, which he was in the habit of taking to relieve pain. He was highly respected in Dalston, where he had long resided. Dr. Evans was only thirty-three years of age, and was considered a rising man in his profession.

THE UPAS POISON.—There is a statement in the *Abeille Médicale* that a scientific gentleman of Berlin recently took three grains of the condensed juice of the upas. He immediately felt an exhilaration of spirits, followed by headache; in half an hour this was succeeded by spasmodic convulsions and other symptoms. On removal to the hospital, an emetic and opiates were administered. He recovered in six days.

PAYMENT FOR VACCINATION.—At the sitting of the Board of Health, held at Croydon on Tuesday, May 5th, the payment to surgeons for each case of vaccination was ordered to be increased from 1*s.* 6*d.* to 2*s.* 6*d.* It is gratifying to observe that the guardians of this union are impressed with the necessity of paying their officers, if not upon a liberal, upon a somewhat more just scale than has hitherto been maintained. This is to some extent due to the humane exertions of Mr. Drummond, but probably more to the cogent arguments advanced by Dr. Alfred B. Carpenter.

MORTALITY IN THE DUBLIN HOSPITALS.—From the report of the Board of Superintendence of the Dublin Hospitals it appears that the rate of mortality is as follows:—Lock Hospital, 0·86 per cent.; Hardwicke, 8·5; Whitworth, 6·14; Richmond, 3·52; Steevens's, 2·81; Fever, 7·66; Cork-street, 5·70; Rotunda Lying-in, 8·13, unusually great in consequence of fever; Coombe Lying-in, 2·7; Meath Infirmary, 3·74.

PERUVIAN PHYSICIANS.—Dr. Markham, in his travels in Peru, describes the physicians as a wandering class. With their wallets of drugs on their backs and dressed in black breeches, a red poncho, and broad-brimmed hat, they walk in direct line from village to village, as did their ancestors in the time of the Incas. It is remarkable that they should never have discovered the febrifugal qualities of the cinchona.

HEALTH OF LONDON DURING THE WEEK ENDING SATURDAY, MAY 9TH.—The deaths in London rose again last week to 1459 from 1374, to which they had declined in the week previous. The mortality from small-pox in the first week of May exhibits but a trifling increase on the weekly mortality from the same disease in April. In two weeks of last month the deaths from it were 68; last week they were 71. In the corresponding week of 1855 there were 28 deaths from small-pox, but the average number in corresponding weeks of ten years (1653-62) is only 11. The disease appears to prevail less in the South districts than in those which lie on the North side of the river; for in the former division only 11 deaths were returned in the week. It was fatal in 19 cases in the West districts, of which 4 were in St. Mary, Paddington, and 10 in Westminster. Twenty-five deaths were registered in the week in the sub-district of St. John, Westminster. Out of that number 14 were from zymotic diseases—namely, 7 from small-pox, 4 from measles, and 3 from whooping-cough. Measles was fatal in 54 cases. It prevails in Chelsea, where 9 deaths from it occurred. Scarlatina caused 73 deaths, 6 of which were in Islington, 8 in Bethnal-green, and 8 in Whitechapel. The births were—boys, 1078; girls, 1077.

MEDICAL VACANCIES.

St. Pancras and Northern Dispensary—Resident Medical Officer.
London Fever Hospital—Resident Medical Officer.
Western General Dispensary—Physician and Surgeon.

MEDICAL APPOINTMENTS.

H. CHARLTON BASTIAN, M.A., M.R.C.S.E., has been elected a Fellow of the Linnæan Society.

W. BLAIR, M.D., has been appointed Medical Officer for the Village and District of Denholm, Roxburghshire, vice J. Young, L.R.C.S.Ed., resigned.

BERNARD E. BRODHURST, F.R.C.S.E., has been appointed Assistant-Surgeon to St. George's Hospital, vice H. Lee, F.R.C.S.E., promoted to Surgeon.

J. P. BURKE, M.D., has been elected Medical Officer and Public Vaccinator for the Louisburgh Dispensary District of the Westport Union, Co. Mayo, vice R. Hudson Newett, L.R.C.S.Ed., resigned.

A. CARSON CLARKE, M.D., has been appointed Resident Medical Officer to the new Workhouse, Crumpsall, Manchester.

T. S. CLOUSTON, M.D., has been appointed Medical Superintendent for the Cumberland and Westmoreland Lunatic Asylum at Garlands.

H. COLEBROOKE, M.D., has been appointed Medical Officer for the newly-created Southborough District of the Tonbridge Union.

R. DOBBIE, M.D., has been appointed Surgeon to the County Prison, Ayr, vice W. Whiteside, M.D., resigned, and since deceased.

A. M'KENZIE EDWARDS, F.R.C.S.Ed., has been appointed Assist.-Surg. to the Royal Infirmary, Edinburgh, vice Watson, promoted to be third Acting Surgeon.

GORREQUER GRIFFITH, M.R.C.S.E., has been appointed House-Surgeon to the London Surgical Home.

J. F. MACKERETH, L.R.C.P.Ed., has been elected Medical Officer and Public Vaccinator for the Danby District of the Guisborough Union, Yorkshire, vice J. Allanson, M.R.C.S.E., resigned.

J. R. M'LINTOCK, M.B., has been appointed Resident Medical Assistant to Murray's Royal Institution for the Insane, Perth, vice W. Carmichael M'Intosh, M.D., appointed Medical Superintendent of the Perth County Lunatic Asylum, Murthly.

G. R. ORD, M.R.C.S.E., has been appointed Surgeon to the Royal Asylum of St. Ann's Society, Brixton-hill, vice L. Huntley, M.R.C.S.E., resigned.

J. DUDLEY PHILLIPS, L.F.P. & S.Glas., has been elected Medical Officer for the Haverfordwest District of the Haverfordwest Union, Pembrokeshire, vice G. Phillips, F.R.C.S.E., deceased.

T. PROSSER, F.R.C.S.E., has been elected one of the Surgeons to the Monmouth Dispensary, vice J. Mayou, M.R.C.S.E., deceased.

R. T. SMITH, F.R.C.S.E., has been elected Medical Officer and Public Vaccinator for the second District of the Risbridge Union, Suffolk, vice H. L. Nasse, M.R.C.S., resigned.

J. STARLING, L.R.C.P., has been appointed Medical Officer for the Chelsea, Brompton, and Belgrave Dispensary, vice W. Stevens, M.R.C.S.E., deceased.

W. H. STEPHENSON, M.D., has been elected Medical Officer and Public Vaccinator for the Mellor District of the Blackburn Union, Lancashire, vice J. Pickop, L.S.A., resigned.

P. HERON WATSON, M.D., Lecturer on Surgery, has been appointed Surgeon to the Royal Infirmary of Edinburgh, vice John Struthers, M.D., resigned.

H. WILLEY, M.R.C.S.E., has been elected House-Surgeon to the Poplar Hospital, vice F. W. Spargin, M.R.C.S.E., resigned.

MILITARY AND NAVAL MEDICAL APPOINTMENTS.

F. F. ALLEN, M.R.C.S.E., Assist.-Surg. Indian Medical Department, has been promoted to Surgeon, vice Crosier, deceased.

G. BANISTER, Surgeon Bengal Service, has been transferred from the 104th Foot to the 5th Royal Horse Brigade.

G. BOLSTER, L.R.C.S.I., Assist.-Surg. R.N. June 9th, 1861, has been appointed to the "Triton."

R. W. CARTER has been appointed Surgeon to the Hospital Ship "Bentinck," Bengal.

J. FFOLLIOT, Assist.-Surg. Bombay Service, has been appointed to act as Civil Surgeon at Shikarpore.

N. FFOLLIOTT, L.K.Q.C.P.I., Staff Surgeon attached to the Royal Artillery, has been directed to assume medical charge of the Arsenal Establishments at Ferozepore, in addition to his other duties.

C. R. FRANCIS, M.B., Surgeon Bengal Service, has been transferred from the 16th Brigade Royal Artillery to the 104th Foot.

J. HENDLEY, M.R.C.S.E., Staff Surgeon attached to the 7th Foot, has been directed to assume medical charge of the Left Wing of the 27th Native Infantry and Brigade Staff at Ferozepore, in addition to his other duties.

A. N. HOJEL, Assist.-Surg. Bombay Service, on general duty Northern Division, has been placed in medical charge of the G Battery 18th Brigade Royal Artillery.

D. C. M'ALLUM, M.D., Assist.-Surgeon Madras Medical Establishment, has been appointed to the medical charge of the 3rd Infantry Hydrabad Contingent.

W. L. M'DERMOTT, Acting Assist.-Surgeon R.N., has been appointed to the "Egmont."

J. B. MARR, L.F.P. & S.Glas., has been appointed Surgeon to the "Coromandel," Indian Navy.

C. RICKETTS, Assist.-Surgeon 7th Foot, has been directed to assume medical charge of the Civil Station at Ferozepore as a temporary measure, vice Assist.-Surg. T. E. Hale.

Assist.-Surg. ROBOTHAM, 7th Dragoon Guards, has been appointed to the medical charge of the Murree Convalescent Depôt, vice Assist.-Surg. Reade, whose term of duty has expired.

W. M. SAUNDERS, M.D., Surg. to H.M.'s Ship "Britannia," having completed twenty years' full-pay service, becomes a Staff Surgeon R.N. under the provisions of the Royal Warrant of May 13th, 1857.

C. SMITH, M.D., Assist.-Surgeon Madras Service, has been appointed Medical Officer at Coonoor, with the charge of Kotagherry, vice Leslie.

H. MEREDITH SPEER, Surgeon R.N. April 7th, 1855, has been appointed to the "Liverpool."

SIR JOHN STANLEY, M.R.C.S.E., Staff Assist.-Surg. Army, from half-pay, has been appointed Staff Assist.-Surg., vice M. Grant, M.D., appointed to the 2nd Life Guards.

W. STEWART, M.D., Staff Surgeon, recently in medical charge of the 23rd Royal Welsh Fusiliers, has been ordered to take medical charge of the 2nd Dragoon Guards at Benares, vice Massy.

H. THOM, M.D., Assist.-Surg. Bengal Service, has been appointed to the civil medical charge of Dalhousie.

A. P. TOMKYNS, M.D., Superintendent of the Central Prison at Bareilly, has been appointed to perform the duties of Civil Assist.-Surg. at that Station, in addition to his other duties, during the absence of Dr. F. Corbyn, on duty at Calcutta.

J. TRIMBLE, L.R.C.S.I., Assist.-Surg. R.N. June 3rd, 1859, has been appointed to the "Liverpool."

J. WARD, Surgeon R.N. Oct. 11th, 1851, has been appointed to the "Active."

F. H. WELCH, M.R.C.S.E., Staff Assist.-Surgeon Army, has been appointed Assist.-Surg. to the 23nd Foot, vice J. Adcock, M.D., who has exchanged.

Assist.-Surg. WHEATLEY, Bombay Establishment, has been appointed to the medical charge of the 22nd Native Infantry, vice Carnegie.

G. WILLIAMSON, M.D., Staff Surgeon-Major, has been appointed Surgeon to the 64th Foot, vice J. G. Inglis, M.D., C.B., promoted on the Staff.

G. WILLIAMSON, M.D., Assist.-Surg. 108th Foot, has been posted to the 1st Infantry Hydrabad Contingent at Bolarum.

F. WOODMAN, M.D., has been appointed Assist.-Surg. to the "Kwung-Tung" of the European Chinese Naval Force.

Surg.-Major WRIGHT, Bombay Service, has been appointed Presidency Surgeon of the 1st District, vice Arbuckle, promoted.

T. P. WRIGHT, Assist.-Surgeon Bengal Service, has been posted to the 38th Native Infantry, vice Stewart.

S. J. WYNDOWE, M.D., Assist.-Surg. Madras Service, has been posted to do duty with the 44th Native Infantry.

Births, Marriages, and Deaths.

BIRTHS.

On the 27th ult., at Stranraer, N.B., the wife of David Easton, A.B., M.D., prematurely of a son.

On the 27th ult., at Dartmoor, the wife of H. Rooms, M.D., of a daughter.

On the 30th ult., at Cheltenham, the wife of J. Stewart Kilgour, M.D., of a daughter.

On the 3rd inst., at Barrow-hill, Staveley, Derbyshire, the wife of Thomas P. Hale, M.R.C.S.E., of a daughter.

On the 7th inst., at Parsonstown, the wife of H. D. Massy, Staff Assistant-Surgeon, of a son.

On the 8th inst., at Southwark-bridge-road, the wife of John Sleeman, L.R.C.P., of a son.

On the 8th inst., at St. Leonard's Court, near Gloucester, the wife of W. Rutherford Ancrum, M.D., of a son.

On the 9th inst., at Cross House, Ilminster, Somersetshire, the wife of J. Bedford Allen, H.M.'s Indian Army, Civil Surgeon of Gyah, Behar, Bengal, of a daughter.

On the 10th inst., at Queen's-road, Bayswater, the wife of John Taylor, M.D., of a daughter.

On the 12th inst., at Wimpole-street, Cavendish-square, the wife of S. O. Habershon, M.D., of a son.

On the 13th inst., at St. Helens, Lancashire, the wife of Edward P. Twyford, M.D., of a son, still-born.

MARRIAGES.

On the 22nd ult., at Alconbury, Thos. J. Hugall, M.R.C.S.E., of Stadhampton, Oxfordshire, to Harriet Elizabeth, second daughter of Lancelot Newton, M.R.C.S.E., of Alconbury-hill, Hants.

On the 23rd ult., at Half-way Tree Church, St. Andrews, Jamaica, James Thompson, M.D., Assistant-Surgeon H.M.'s 4th W.I. Regiment, eldest son of Andrew Thompson, Esq., of Burlington-road, Dublin, to Mary Jane, only daughter of the Hon. Mr. Justice Cargill, one of her Majesty's Judges for the Supreme Court of Jamaica.

On the 7th inst., at Isleworth, T. C. Sayers, M.D., of Faversham, to Lucy Emma, only daughter of the late C. Phillips, M.D., of Manchester.

DEATHS.

At Brooklyn, New York, Robert Clifford, M.D., late of Dublin, aged 63.

On the 11th ult., at Egglescliffe, Durham, Maria, relict of J. Dale, M.R.C.S.E., of Yarm, Yorkshire, aged 57.

On the 2nd inst., Mary Anne, the wife of John Sides Davies, M.R.C.S.E., of Beatrice-street, Oswestry, aged 35.

On the 3rd inst., John Birch, M.R.C.S.E., of Portland-street, Manchester, aged 35.

On the 4th inst., at Argyle-square, Edinburgh, Geo. Sibbald, Surgeon, late of the Royal Navy, aged 78.

On the 5th inst., T. Llewelyn Hodson, M.R.C.S.E., of Liverpool, aged 60.

On the 6th inst., at College-square North, Belfast, J. Bonar M'Gregor, L.R.C.S.Ed.

On the 7th inst., Daniel Hilliard, L.R.C.S.I., of Ballymullen, Tralee, Co. Kerry.

On the 8th inst., at St. Columb, Antony Whitford, M.B., of Shepherd's House, Cranbrook, Kent, aged 29.

On the 9th inst., Dr. Evans, of Dalston, near Carlisle, aged 37.

On the 9th inst., at Grafton-street, Brighton, W. H. Rowe, M.R.C.S.E.

On the 10th inst., John Atkinson, Surgeon, of Kilham, Yorkshire, aged 62.

On the 11th inst., suddenly, at Great Cumberland-street, Hyde-park, John Challice, M.D., Medical Officer of Health for Bermondsey, aged 48.

BOOKS ETC. RECEIVED.

Dr. Graves's Studies in Physiology and Medicine.
Mr. Thompson's Practical Lithotomy and Lithotrity.
Mr. R. Folsom on the Senses of Smell and Taste.
Dr. F. P. Porcher's Illustrations of Diseases with the Microscope. Part I.
Annual Report of Lunacy Commissioners for Scotland.
Rev. S. Haughton on a New Theory of Muscular Action.

Medical Diary of the Week.

MONDAY, MAY 18
- LOCK HOSPITAL, Dean-street, Soho.—Clinical Demonstrations and Operations, 1 P.M.
- ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM.—Operations, 1½ P.M.
- METROPOLITAN FREE HOSPITAL. — Operations, 2 P.M.

TUESDAY, MAY 19
- GUY'S HOSPITAL.—Operations, 1½ P.M.
- WESTMINSTER HOSPITAL.—Operations, 2 P.M.
- ROYAL INSTITUTION.—3 P.M. Prof. Tyndall, "On Sound."

WEDNESDAY, MAY 20
- MIDDLESEX HOSPITAL.—Operations, 1 P.M.
- ST. MARY'S HOSPITAL.—Operations, 1 P.M.
- UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M.
- HUNTERIAN SOCIETY. — 8 P.M. Dr. Fowler, "On a Case of Laceration of the Vagina during Labour: a Medico-Legal Question."

THURSDAY, MAY 21
- ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
- CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 1 P.M.
- LONDON HOSPITAL.—Operations, 1½ P.M.
- ROYAL FREE HOSPITAL.—Operations, 1½ P.M.
- GREAT NORTHERN HOSPITAL, King's Cross.—Operations, 2 P.M.
- LONDON SURGICAL HOME.—Operations, 2 P.M.
- WEST LONDON HOSPITAL.—Operations, 2 P.M.
- ROYAL ORTHOPÆDIC HOSPITAL. — Operations, 2 P.M.
- ROYAL INSTITUTION. — 2 P.M. Professor Austed, "On Geology."
- CHEMICAL SOCIETY.—8 P.M. Mr. W. R. Grove, "On Certain Effects of Intense Heat on Fluids."
- HARVEIAN SOCIETY.—8 P.M. Clinical Meeting.

FRIDAY, MAY 22
- WESTMINSTER OPHTHALMIC HOSPITAL. — Operations, 1½ P.M.
- ROYAL INSTITUTION.—3 P.M. Prof. Roscoe, "On the Sun's Chemical Action."

SATURDAY, MAY 23
- ST. THOMAS'S HOSPITAL.—Operations, 1 P.M.
- ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
- KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
- CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
- ROYAL INSTITUTION. — 3 P.M. Prof. Max Müller, "On the Science of Language." (Second Series.)

To Correspondents.

Comparative Pathologist.—According to a recent and high authority (Mr. Gamgee), Yorkshire is probably one of the counties most subject to outbreaks of contagious diseases, owing to the many Irish animals which enter it through the port of Liverpool, and the large number of imported cattle landed at Hull. According to the same authority, Yorkshire has, however, its full share of enzootic disorders, and a large number of its cows are carried off annually by the fatal apoplexy which succeeds calving. The occurrence of anthracoid affections, such as "black quarter" and "gloss-anthrax," is to be more generally noticed over the county in question than in many other parts of England.

J. E.—It is doubtful whether he could recover for medicines or attendance in *surgical* cases.

Sufferer shall receive a private note if he will send us his address.

ANIMAL LIFE.

To the Editor of THE LANCET.

SIR,—I have read in THE LANCET of the 9th instant of some experiments recently made in Paris as to the most humane mode of slaughtering animals for human food. I quite agree with you that the experimenter should have had the assistance of a good physiologist, in order to explain the character of the results observed. I am of opinion that, even in the most expeditious way of slaughtering, an animal cannot be deprived of the appearance of life under a period of three or four minutes. The method proposed by the late Dr. Carson, of Liverpool, is, I contend, as humane a plan as any yet practised. In effecting the collapse of the lungs by making a cavity between the fifth and sixth ribs on each side of the chest, the lungs are deprived of their elasticity; and this may be accomplished by an expert operator in about twenty to thirty seconds. After this has been done, the operator should immediately cut the spinal marrow at the back of the head, or, in other words, *pith* the animal. By this last operation, irritability is destroyed, and it is presumed the animal has no further feeling. It dies in about three minutes from the commencement of the operation. I am of opinion that life is prolonged for this period, after the collapse of the lungs, by the already arterialized blood being supplied to the heart until it is exhausted. In this method of slaughtering, hardly any blood is lost, and in dressing the animal nothing but venous blood is carried away, the finer juices being retained in the body as they existed during life. Meat killed in this manner is certainly more succulent, nutritious, and tender; in use it is more economical, and is preserved longer from decay than that of animals killed by any other method.

I am, Sir, your obedient servant,

May, 1863. P. M. C.

The Junior Practitioner.—The statement forwarded to us does not differ materially from that which was furnished by "F.R.C.S." Our opinion, consequently, upon the merits of the case remains unchanged. We acquit our correspondent of having desired to act in a spirit contrary to the received laws of medical etiquette, and believe that the error he committed was simply one of judgment. Now, what are the facts of the case? The junior in the first instance saw the patient as the *locum tenens* of the senior. In fact, it is reasonable to assume that without this introduction he would not have been in attendance at all. The gist of the question at issue is simply this: Is it consistent with the rules of professional propriety and etiquette for the *locum tenens* of a brother practitioner under any circumstances to supplant him? It may be argued that where there is palpable neglect or manifest want of skill on the part of the senior, there may be an excuse and even a justification for the *locum tenens* taking sole charge of the case. But there appears to be no such excuse in the present instance. The senior is a gentleman long established in his present position, a practitioner of great experience and of undoubted skill. It was an urgent professional necessity which induced him to apply for assistance to his "junior." Now, we aver that under such circumstances the junior is bound by every law of etiquette and honour to hold the position and reputation of his senior as a sacred trust confided to him under the implied assurance that that trust would not be abused. By "abuse," we mean not a low, truckling attempt by word or action to supersede his friend. On the contrary, we take the true professional ground of argument to be that, if confidence between medical gentlemen is to be maintained, the *locum tenens* is, under ordinary circumstances, never justified in usurping the position of his principal. Whether meeting as a consultant or otherwise, the line of practice to be observed is equally clear. If a physician, called in consultation, so far forgot his duty as to consent to take sole charge of the case to which he has been called, it would be ruinous to his future career. Who would call him in again? We could point to more than one instance in which consultant practitioners have been wrecked upon this danger, and these have been men of mark and distinction. It will be observed that we have treated this question as one of principle, and we have purposely avoided reference to names or places. Indeed the "personal" question sinks into insignificance when compared with the principle at issue. It is a question of honour and confidence, and is not to be compromised by special pleading or by an assumed necessity. Disembarrassed of all complications, it amounts to this: Is it safe or prudent for a gentleman engaged in extensive practice, under an urgent necessity, to request the assistance of a brother in a case of difficulty? It is satisfactory to believe, and we do believe, that breaches of professional confidence are the exceptions, and not the rule with our brethren. These exceptions, we are happy to say, are rare indeed. If it were not so, we should practise our calling, not as a "noble profession," but as a "low trade." The "Junior Practitioner" may be possibly impressed with the conviction that we have treated the case under consideration with undue severity; but confident in our opinion that he has been actuated by no unworthy motive, and that his error has resulted from a mistaken view of his position, he will, when a few years have passed over him, acknowledge not only the justice, but the expediency of our remarks.

T. T.—We believe that a Bill is now before Parliament which proposes some interference with the present horrible system which permits animals affected by contagious maladies to be driven about and sold, to the great danger of any stock with which they may directly or indirectly come in contact.

A Welshman.—Mr. Charles Phillips was not disbarred. He was made a Commissioner of the Insolvent Debtors' Court.

THE communication of *Mr. Redfern Davies* shall appear in an early number.

DUGONG OIL.

To the Editor of THE LANCET.

SIR,—Having observed in your journal of May 2nd, observations (in answer to "Naturalist") on Surgeon Hunter's Report of the dugong oil as a substitute for cod-liver oil, I wrote to Mr. Hunter on the subject, and he kindly forwarded me his publication on some of the colonial medicinal contributions exposed at the International Exhibition, mentioning myself as the introducer of the oil into practice in England, likewise being the exhibitor in the Ceylon Court.

It afforded me much pleasure last year in aiding Mr. Hunter's objects on this subject. He confirms its value, but fears its price. Now, on the latter point I have no fear. It is a work of time, but assuredly will be a success. His Grace the Duke of Newcastle, Secretary of State for the Colonies, has afforded me all assistance in his power. The value of the oil is undoubted in consumptive diseases. Many leading physicians and general practitioners throughout the country have given me most satisfactory proofs of the value of the oil. Its unquestionable superiority over cod-liver oil, in one point alone, is that *it can be taken when the stomach refuses the latter.* As to its medicinal results, I shall leave this point for a future statement, when I intend to report, through your valuable journal, cases and their results; and such of my medical brethren who have not tried this valuable remedy shall have every opportunity of testing the oil through the hands of my agents. One important fact: I have kept a bottle of the oil for the purpose of proving its value in not turning rancid or strong—a point, I fear, the cod-liver oil will never maintain. For four years I have had the bottle in my possession, frequently opening it for those curious to taste the oil. It is as sweet as possible now.

I am preparing a small volume of cases, also a scientific history of the dugong in various parts of the world. The latter will afford knowledge and, I think, pleasure to the reader.—I am, Sir, yours obediently,

M'GRIGOR CROFT, M.D., M.R.C.P.L.,
Formerly Staff Surgeon to her Majesty's Royal Army Hospitals.

Mandarin-villa, St. John's-wood, May, 1863.

Leeds.—The Drs. Braithwaite are gentlemen of character and position, and we cannot believe that they sanction the exhibition of the placard by Mr. J. A. H. Toulson. Is it possible that the vaunted certificate was given for another purpose? At all events it would be satisfactory to the profession and the public if the Drs. Braithwaite would give some explanation of the matter. The proceeding adopted by Mr. Toulson is most objectionable.

A Country Practitioner.—Cystic tumours of the eyelids form in consequence of occlusion of the orifices of the Meibomian follicles.

Dr. Maysmor.—The article shall appear next week.

Brix.—Dr. Güggenbuhl lately died at Basle. He is said to have left 600,000 francs to a Moravian community, that it may continue the establishment for cretins founded by him upon the Abendberg, near Thoune.

REVACCINATION.

To the Editor of THE LANCET.

SIR,—At the present time the public mind is naturally much agitated by the increased prevalence of small-pox, and the subject of vaccination is being discussed by the press with an interest which would seem to have been for many years past quite dormant.

It cannot be denied that this wholesome prophylactic practice has been much disregarded of late, in spite of the compulsory enactment of the Government, and I am inclined to think that this neglect has arisen from the want of a proper knowledge, on the part of the people, of the true nature of the practice itself—an ignorance due in some measure, I fear, to the absence of free communication of sentiment and opinion by the members of our profession to those communities among which they exercise the functions of their calling. The lessons of experience should be constantly inculcated as a part of the humane plan of hygiene, which it is the noble purpose of medicine as a science to perfect.

Impressed with this belief, I venture to suggest that a chief point of doctrine on which practitioners should insist is the necessity of revaccination periodically during life. In the writings of Jenner may be found ample grounds for assuming that he apprehended the propriety of repeating the process, and I presume that there are few practitioners who do not now entertain a strong conviction of its necessity. If the elemental constituents of the body are constantly undergoing change by removal, it is but logical to conclude that the constitutional impression produced by the vaccine virus at one period of life, and upon which its prophylactic potency depends, must be exhausted when the fluids and solids which then formed parts of the whole structure no longer exist. It would be difficult to establish any rule as to the periodicity of this requisite repetition. My own impression is, that presuming a child to be vaccinated during the first year of its life, vaccination should be repeated at least every three years, and more especially during the two decades from twelve to thirty-two years of age, embracing as these terms do the periods of pubescence and mature development. This conviction is sustained by the mortality tables of last week, in which it is shown that of 68 deaths from small-pox, 18 occurred at the age of 20 years and upwards.

There are many points in a question like this which will bear argument and elucidation, and I should like to see the whole subject comprehensively treated by some able pen.

While on this topic, I venture also to urge the propriety of frequently removing the virus from the cow direct, and I am not altogether satisfied but that this should be the only *vaccination*. I see much written about the impurity of lymph, and this impurity I am inclined to attribute to degeneration of the virus, consequent upon the custom of transmitting it through so many individuals of the same species.

There were some able papers published in your pages on this subject, I think about sixteen years ago. A reference to them will be advantageous to the interests of scientific progress at the present day.

I am, Sir, your obedient servant,

May, 1863. A CONSTANT OBSERVER.

To the Editor of THE LANCET.

SIR,—We are revaccinating rather extensively, and the guardians say that (having made inquiries at the Board above) they have no power to pay for these cases as revaccinated ones, although many of them are successful. Is this the law?

Would any of your readers be good enough to inform me where any vaccine can be obtained that has been only recently taken from the cow?

Your obedient servant,

Margate, May, 1863. W. H. THORNTON, M.R.C.S.

Student.—Spina bifida is mostly met with in the lumbar region; but at a recent meeting of the Société de Biologie," M. Blot related a case in which it existed at the middle part of the posterior cervical region. The cranial sutures and fontanelles were somewhat larger than usual; but there was not any malformation of the thorax.

M.D.—As far as the recorded testimony can afford information, there seems little to choose between the different compounds advertised. The composition of the various preparations appears to differ in no important element.

DIABETES.

THE number of substitutes for bread for the use of the diabetic has lately been increased by the preparation by Mr. Hill, of Bishopsgate-street, at the suggestion of Dr. Pavy, of some articles made from almond powder and eggs. These articles are very palatable and highly nutritious. They also abound in oleaginous matter, the administration of which in many cases of diabetes is frequently attended with such beneficial results.

Prof. Longmore is thanked.

Dr. M. O'Reilly.—Such conduct is highly reprehensible; but it would serve no good purpose to expose it.

A Young Surgeon, (Birmingham.)—1. It is seldom necessary, and usually impolitic.—2. It is clearly unprofessional for a surgeon to give advice gratis to the poor, and then to send them to a chemist with whom he shares the price paid for his dispensing.

A Traveller.—1. We believe that the practice of medicine in Turkey has recently been placed under legal protection. The "pharmaciens" are obliged to be provided with a list of the registered practitioners, and are forbidden to dispense the formulæ of any other persons.—2. A medical school has been established in Australia in connexion with the Melbourne University. Dr. Halford, late of London, will superintend its working and curriculum.

A Young Botanist cannot do better than provide himself with the last edition of "Hooker's British Flora." In our opinion, it still continues to be the best guide extant.

Alpha must put his question more clearly. As it now stands, it is incomprehensible.

THE NAVAL MEDICAL WARRANT.

To the Editor of THE LANCET.

SIR,—The army medical officers have at length obtained nearly all the advantages which the original Warrant intended they should enjoy; and we in the sister service congratulate them and you, Sir, through whose able advocacy of their claims this valuable boon has been in a great measure won.

Now, we in the navy have something to say about our Warrant which we are sure will meet with your sympathy and that of the profession at large. You are aware that an exactly similar Warrant to that of the army was issued in 1859, which was supposed to have settled the very unsettled question of the rank of medical officers in the navy; and when I say rank, of course I mean all the relative advantages pertaining to it. How complete a myth her Majesty's Warrant has become in the hands of the Admiralty I purpose to lay before you, more particularly for the benefit of those men who may labour under the delusion that because our Warrant is the same as that of the army, it is carried out in a similar spirit, and, hastily entering the navy, find out their mistake when it is too late.

With respect to choice of quarters (of so much moment to our brethren of the army), I may inform you that the Warrant has been of no use to us whatever, as our cabins (when we get them) are always marked out for us by the dockyard authorities, and in ships about to carry two assistant-surgeons there is never any provision made for more than one. If the choice of a cabin lay between a lieutenant and an assistant-surgeon, his senior, every one in the service knows very well that it would be considered the height of presumption for the assistant-surgeon to put in his claim.

With respect to prize-money, there is an old Order in Council of 1853, which grants equal shares to surgeons, assistant-surgeons, clerks, boatswains, carpenters, &c.; so that in a naval action to-morrow the staff surgeon and clerk would share alike. This arrangement has not been altered since the issue of the Warrant, nor do the Admiralty contemplate any alteration.

Again, in a recent circular about travelling expenses, the rank of staff surgeon is completely ignored, and the assistant-surgeons, irrespective of seniority, put with their juniors.

In the late change of uniform, the Admiralty have worded their circular in their usual felicitous manner, so that the uniform of an assistant-surgeon over six years and that of a surgeon are precisely the same, thus ignoring the latter's rank.

I fear I should occupy too much of your valuable space by writing more; and I may conclude by assuring the rising generation of students that the Naval Medical Warrant, except in the matter of pay, is practically a dead letter. I enclose my card, and remain,

Your obedient servant,

Portsmouth, May, 1863. ASSISTANT-SURGEON, R.N.

IN consequence of great pressure on our space, we are compelled to postpone the "Mirror of Hospital Medicine and Surgery," the report of the Obstetrical Society of London, Dr. Millar's "Case of Moral Insanity," and numerous advertisements.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Ranald Martin; Dr. Hughes Bennett; Dr. Jenner; Dr. Braxton Hicks; Dr. Richardson; Messrs. Wild and Barber; Mr. Filescher, (with enclosure;) Mr. J. Lomittet, Gorebridge; Mr. Mouritz, Ampthill, (with enclosure;) Mr. Kettering; Mr. Binks, Wakefield, (with enclosure;) Mr. Gerrans; Prof. Longmore; Dr. Kirkman, Barming Heath; Mr. Erskine, Newton Stewart; Dr. C. Clarke; Dr. Wiblin, Southampton; Mr. Locke; Mr. Goldie, (with enclosure;) Mr. Whitaker, Derby; Mr. Young, Newhaven, (with enclosure;) Mr. Dawson; Mr. Couch; Dr. O'Reilly; Mr. T. Taggert, (with enclosure;) Mr. Reddrop, Chelsey, (with enclosure;) Mr. Blower, Bedford; Dr. Thompson, Kingston; Dr. Walker, Peterborough; Mr. Savage, (with enclosure;) Dr. Saunders; Mr. Adams, Bungay; Mr. W. J. Clarke, (with enclosure;) Mr. Whymper, Walsall; Mr. Johnstone, Liverpool, (with enclosure;) Mr. Wildash, Hythe; Dr. Maysmor; Mr. M. Ashwell, Stoke-on-Trent; Mr. Everet; Mr. Sandell; Mr. Peaty, Tredegar, (with enclosure;) Dr. Earlam, Northwich; Mr. James, (with enclosure;) Mr. Thomas, Dublin, (with enclosure;) Dr. Churchill; Mr. Fitkin; Mr. Hunter; Dr. Osborn; Mr. J. Smith, Edinburgh; Mr. A. Fleischmann, Cheltenham; Mr. E. Bennett, Worksop, (with enclosure;) Dr. Watson; Mr. Thornton; Mr. Matthews, Battle, (with enclosure;) Mr. Fletcher, (with enclosure;) Mr. Mitchell, Farnham; Mr. Davies, Birmingham; Mr. Dugdale; Mr. P. Ellis, (with enclosure;) Mr. Jones, Brackley, (with enclosure;) Mr. Thompson; Dr. Devenish; Mr. Primrose, Chester; Mr. Ellis, Willingham; Dr. Allen, Lincoln; Mr. M'Glashan, Middlesbro'; Mr. Hale, Staveley; Mr. Newton; Mr. Pennington; Mr. Trevan, Paustow, (with enclosure;) Mr. M'Donald, (with enclosure;) Mr. Cope; Dr. Turner, St. Leonards; Mr. Gilbert, (with enclosure;) Dr. Simpson, Glasgow; Mr. Rae; Mr. Duckworth, (with enclosure;) Mr. Flower, Heytesbury, (with enclosure;) Mr. Dalton, Cardiff; Dr. Donaldson; Mr. Brown, Edinburgh, (with enclosure;) Dr. Taplin, (with enclosure;) A Country Practitioner; A Welshman; L.R.C.P.; A Constant Reader; M.R.C.S.; X. Y. Z., (with enclosure;) M.D.; A Glasgow Student; A. L. S.; Anthropological Society; Bath Infirmary, (with enclosure;) A Civil Practitioner; Medicus; H. S. D.; Chirurgus; A Third-year's Student; M. D. O., (with enclosure;) P. C. S. D.; Pharmaceutical Society; An Old Surgeon; A Constant Observer; Student; Royal Institution; Sufferer; &c. &c.